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ABSTRACT

The eight chapters in this book explain a teaching model to help students develop their kinesthetic intelligence through purposeful movement education. The major focus is the kindergarten through third grade child, but because in movement one can be a "beginner" at any age, movement experiences of both older and younger learners are occasionally used. Chapter 1 presents an overview of education through movement, providing information about the special role that movement education plays with today's learners and how the school and classroom environment can be set up to provide children with developmentally appropriate movement experiences. Chapter 2 introduces the active learning approach and the proposed teaching model for education through movement. Chapter 3 explains the movement core and the teaching/learning framework provided by the key experiences in movement. Chapters 4 through 6 contain full descriptions of the nine key experiences in movement such as acting upon movement directions, moving in nonlocomotor and locomotor ways, and expressing creativity in movement. Chapter 7 presents 80 activities providing specific active learning experiences in movement and music at the K-3 level. Chapter 8 provides an observation record for assessment purposes. Several appendices complete the book and include information on two methods for determining children's beat competence and beat coordination, information about movement research and training, and a glossary of technical terms. Numerous illustrations are provided. (LL)

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FOUNDATIONS

in Elementary Education

Movement

Phyllis S. Weikart
Elizabeth B. Carlton

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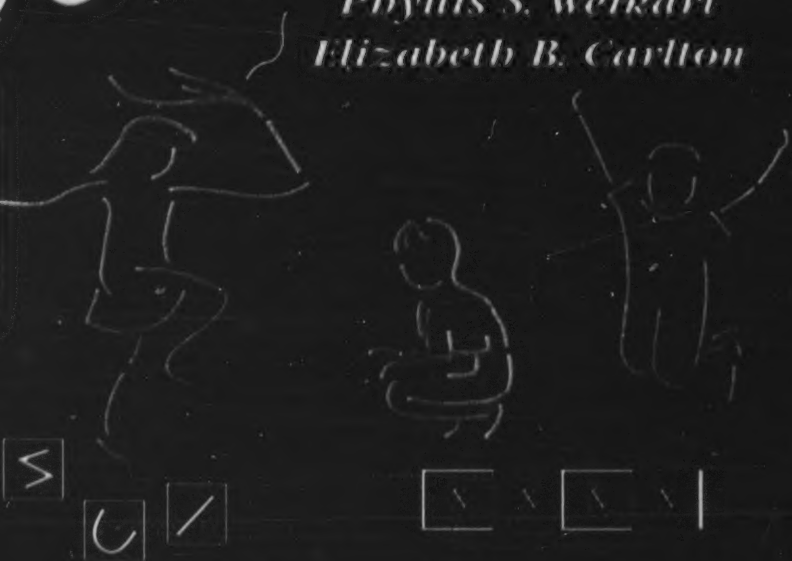

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Phyllis S. Weikart
Elizabeth B. Carlton

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We deeply appreciate the opportunity we have had to walk and talk with you and to learn from you on this journey.

Let's form a circle,
Circle of friends.
Circles are symbols
Having no end.
Each of needed,
Each of us part
Of the circle of friends here
Having one heart.

Preface

Any observer of young children will agree that they readily and naturally employ movement in their play and work routines. Because comfort and success with physical movement can provide a basis for much of the learning that occurs in the early elementary grades, our major focus here is the K–3 child. But because in movement one can be a "beginner" at any age, we also draw occasionally on the movement experiences of both older and younger learners. Classroom teachers, physical education and music specialists, arts educators, adults working with special populations, teachers-in-training, and parents should all find it useful to learn from this book how contact with movement and music throughout the K–3 day can further the development and education of the whole child. Purposeful movement—that is, movement performed with awareness—provides children with a kinesthetic base to take initiative, to explore, to solve problems, to make choices and decisions, to work with concepts, and to reflect on one's work.

The theory, guidelines, and strategies presented here are derived from the program that Phyllis S. Weikart has developed in over 30 years of engaging learners of all ages in purposeful movement. This program, called **"Education Through Movement: Building the Foundation,"** incorporates the active learning elements in the High/Scope educational approach, so children themselves have opportunities to develop ability, awareness, and knowledge leading to "ownership"—the understanding and application of movement concepts. This ownership, in turn, leads to children's increased comfort and success with movement. The foundation for learning of all kinds can be built using movement—not just in physical education class, but throughout the day.

Education through movement, with its conceptual emphasis, and building the foundation through development of the kinesthetic intelligence should be the goals that every teacher strives for in the early elementary grades and beyond. Without a secure foundation in purposeful movement, children cannot be as successful in sports and games, in the arts, and in the other curriculum areas as their potential would allow.

To assist and guide teachers in building the foundation, Chapter 1 presents an overview of education through movement, providing information about the special role that movement education plays with today's learners. This chapter explains not only how the child's body is the "primary learning center" for active learning experiences in movement but also how the school and classroom environment can be set up to provide children with developmentally appropriate movement experiences. Chapter 2 introduces the **active learning approach** and the **Teaching Model** for education through movement. Chapter 3 explains the **movement core** and the teaching/learning framework provided by the **key experiences in movement.** Chapters 4 through 6 contain full descriptions of the nine key experiences in movement.

Chapter 7 presents 80 activities providing specific K–3 active learning experiences in movement and music, all tried and proven by the authors. Chapter 8 provides an observation record for assessment purposes. Several appendixes complete the book. They include two specific methods for determining children's beat competence *and* beat coordination, *information about movement research and training, and a glossary of technical terms.*

We hope you will derive personal satisfaction from working with purposeful movement in the way described in this book. We know you will be able to observe the significant differences that adult-child partnerships in learning make for all involved. You will be preparing children for a lifetime of enjoyment in movement and music. And the movement and music concepts children come to "own," when used throughout many, varied relevant experiences, will have ramifications across all areas of the curriculum.

If you have built castles in the air,
your work need not be lost;
there is where they should be.
Now put foundations under them.

Henry David Thoreau

It takes a whole village
to educate a child.

African Proverb

Part 1

A Framework for K–3 Movement

Chapter 1

Education Through Movement— Why, How, When, and Where

> *If our civilization is to continue to be both dynamic and nurturing, its success will ultimately depend on how well we develop the capacities of our children, not only to earn a living in a vastly complex world, but to live a life rich in meaning.*
>
> National Standards for Arts Education, 1994

"Education Through Movement: Building the Foundation" is the program developed by Phyllis S. Weikart in over 30 years of teaching movement to learners ranging from preschoolers to adults. The approach of the "Education Through Movement" program is presented in this book to assist teachers using the High/Scope Curriculum in preparing kindergarten through third-grade children to "live a life rich in meaning." Teachers working with either older or younger learners will find this approach effective as well. In fact, the approach may be incorporated successfully into any curriculum based on active learning. In movement, a beginner is a beginner—at any age.

The "Education Through Movement" program uses a conceptual learning approach that has a broad movement base. The guiding principles and sequencing involved in *education through movement* are determined by knowledge of child development, established motor development principles, and our many years of practical experience with learners of all ages. There are five major goals of *education through movement:*

- To engage learners in the key experiences in movement, which are designed to develop the kinesthetic intelligence and address fundamental lifelong motor needs
- To promote active learning experiences supporting all areas of learning
- To *draw* from learners' existing capabilities
- To facilitate learners in *developing* new abilities and awareness and in *constructing* their own knowledge
- To create within learners a personal understanding of movement concepts and the ability to use and incorporate these concepts

The "Education Through Movement" program incorporates an **active learning approach** and a **Teaching Model** that involve helpful ways of defining

Words
LISTEN

Teachers support and guide learners to take personal responsibility for constructing their own knowledge the roles of the teacher and learner. Teachers support and guide learners to take personal responsibility for constructing their own knowledge. This knowledge includes not only understanding of motor skills but also realization of how these skills can be connected to other areas of learning.

Why Do Children Need Education Through Movement?

Today's early elementary school children bring with them many experiences. But in this age of high technology, many times their motor development has not kept pace with their cognitive development and chronological age (see Insert 1.1). Their bodily-kinesthetic intelligence may not even have been considered for its importance.[1]

With today's lifestyle, many children are bussed or driven to school instead of being encouraged or allowed to walk or ride bikes. They do not engage in as many interactive and active neighborhood games, family chores, and outdoor activities as they once did. Passive television viewing and time spent with video games seem to have replaced children's natural play (see Insert 1.2). High-tech appliances have almost eliminated the physical exertion children once used in helping to vacuum rugs and wash clothes or dishes. Fewer children exercise fine-motor skills in the study of piano, guitar, or violin. The emphasis on early participation in competitive sports means that children often do not have simple patterns of movement in place before advanced physical skills are taught and competition begins. The results of today's fast-changing lifestyle seem to point to children's

- Lack of awareness of what their bodies can do
- Diminished control of arms, legs, and fingers
- Need to develop gross- and fine-motor abilities
- Evident fatigue after brief periods of activity
- Need to attain physical fitness

1.1

Working With Older Students

If you work with upper-elementary students, teenagers, or adults, you undoubtedly have recognized that the motor development of some older learners may not have kept pace with their chronological age. Furthermore, working with older learners can be complicated by the fact that they have developed ways to mask or compensate for their lack of motor development. However, movement ability is in large part the product of experience. It is important to remember that for learners of any age, kinesthetic capability can be improved with appropriate support and guidance. Older students can improve dramatically as you use the **active learning approach** and the **Teaching Model** of the "Education Through Movement: Building the Foundation" program. Here are some guidelines to make your work effective:

1. Use class formations or learning groups that enable individuals to be inconspicuous, if they desire. For example, a seated position or an informal standing formation, one that avoids lines and circles, may provide the "safety net" that older learners need.
2. Work with the same developmental sequences used with younger learners, but choose experiences that are age-appropriate. For example, use simple partner-constructed hand-jives instead of children's action songs. (Many additional suggestions for older learners are given in this book.)
3. Recognize that older learners may be more socially sensitive than children and may have attitudes and habits that are more fixed. However, their language and communication skills are further developed. Remember, though older learners may be delayed in kinesthetic ability, they are usually at "grade level" in general abilities and performance.

1.2

The Importance of Active, Physical Play

Why should we be concerned about the movement base for today's children? It appears that the lack of active and interactive "natural play" may have wide repercussions:

- A Chrysler Corporation-funded study to test the physical strength, endurance, and flexibility of 9.7 million children showed children's success rates in these categories slipping from 43 percent to 32 percent over a 10-year period.[2]

- The results of a 4-year study of 67 children at the University of Southern California suggested that motor coordination and math achievement go together.[3] Children with poorer motor skills had poorer math scores, regardless of their measured IQ.

- A study conducted in Dayton, Ohio, suggested a connection between gross-motor skills and fine-motor coordination. One class of third-grade students practiced roller-skating in addition to penmanship, while a control group of third-graders practiced penmanship only. The roller-skating class improved twice as much in penmanship as the control group.[4]

"Education Through Movement" addresses these issues—by developing and refining each learner's full body-potential in a way that leads to needed **understanding and application—true ownership—of movement concepts.**

As classroom teachers and physical education teachers work together to *build a movement foundation* by developing the kinesthetic intelligence of each student, it is important to remember that movement is not only essential in its own right, for physical development. Purposeful movement can also be useful in supporting concept development in many areas of the curriculum, as examples throughout this book will show. In fact, the fundamental abilities stressed in *education through movement* may be thought of as underlying students' performance in all curriculum areas. These fundamental abilities include **response to and discrimination of aural and visual information, awareness of body and space, basic timing, coordination, habits of planning and recall, communication, problem solving, and creativity.**

The Conceptual Basis of Education Through Movement

The "Education Through Movement: Building the Foundation" program is unique in stressing a *conceptual* approach to motor-skill development. The phrase "purposeful movement"—which means movement performed with awareness of *how* it is being done—is intended to convey this conceptual emphasis of *education through movement* (see Insert 1.3).

In every area of the High/Scope K–3 Curriculum, specific concepts form the basis of skill development. For example, skill in multiplication is based on understanding the concepts of sets, number, and operations. Skill in singing is based on understanding the concepts of melody, rhythm, and musical form. Movement is no exception. Though much instruction in motor skills overlooks the fact, such skills are concept-based as well.

As an example, consider the fundamental motor skill of *jumping*. It includes the broad concepts of *taking off* and *landing*, as well as these concepts:

- *Body awareness*—how a person's weight is first borne by one or two feet and then transferred to two feet
- *Language awareness*—how the word "jump" translates into action
- *Space awareness*—how high and in what direction the jump moves a person
- *Time awareness*—how slowly or quickly the jump is performed

Children develop specific skills when they have many different opportunities to explore, understand, and use the various concepts involved in them. In the case of *jumping,* they learn to associate a word (language awareness) with an action (body awareness of taking off from one or two feet and then landing on two feet). Using these concepts in many and varied ways (jumping forward, backward, sideward, high, low, quickly, slowly), coupled with the **four basic movement abilities of strength, balance, coordination, and basic timing,** results in development of the fundamental motor skill of jumping.

Additional concepts are necessary for the child to explore if the basic skill *jumping* is to be used for jumping jacks, broad jumping, or diving, to name just a few of the extensions of this skill. These more specific ways to jump incorporate additional concepts of

- *Space awareness*—use of personal or general space, different directions, different pathways, different intensities
- *Time awareness*—how fast or slow, even or uneven

All of the concepts underlying motor skills fall into the four awareness categories mentioned here (a later chapter will deal more fully with students' development of *body, language, space,* and *time* awareness). By addressing the concepts that underlie motor skills, *education through movement* engages students both cognitively and physically. Action, thought, and language unite to form important connections to understanding. Students can then apply this understanding of movement concepts in ways that enhance other areas of learning.

1.3

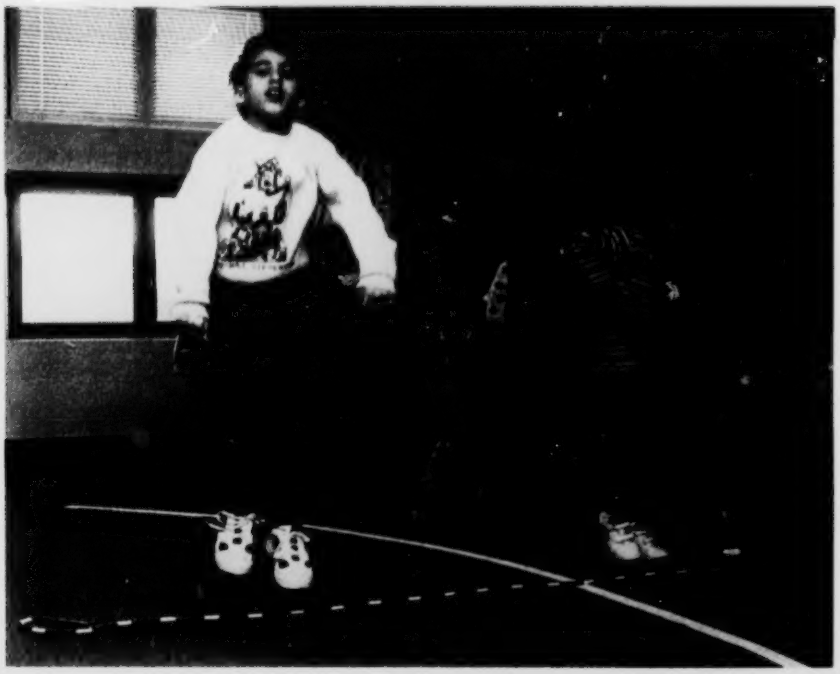
What Is Purposeful Movement?

Purposeful movement requires conscious thought on the part of the learner. It is planned beforehand; it is accompanied by thought; it can be recalled and discussed.

A child hurrying to catch the school bus is focused on reaching the bus before it leaves rather than on the specific movement used to reach the bus. The same child deliberately choosing to skip down the driveway to catch the school bus is still going to meet the bus but has consciously included a purposeful movement as well.

An older person scrubbing a floor may be bending and straightening one arm vigorously but be focused on getting the floor clean rather than on the arm movement. That same person, planning, executing, and then discussing various positions for bending and straightening both arms (in front of the body, overhead, out to the side) is engaging in purposeful movement.

In *education through movement,* learners develop their ability to make and carry out a movement plan, to choose a specific movement, to think about the movement while doing it, and to describe and recall the movement afterward. Movement ability is improved as learners are engaged and supported in using this conscious process.



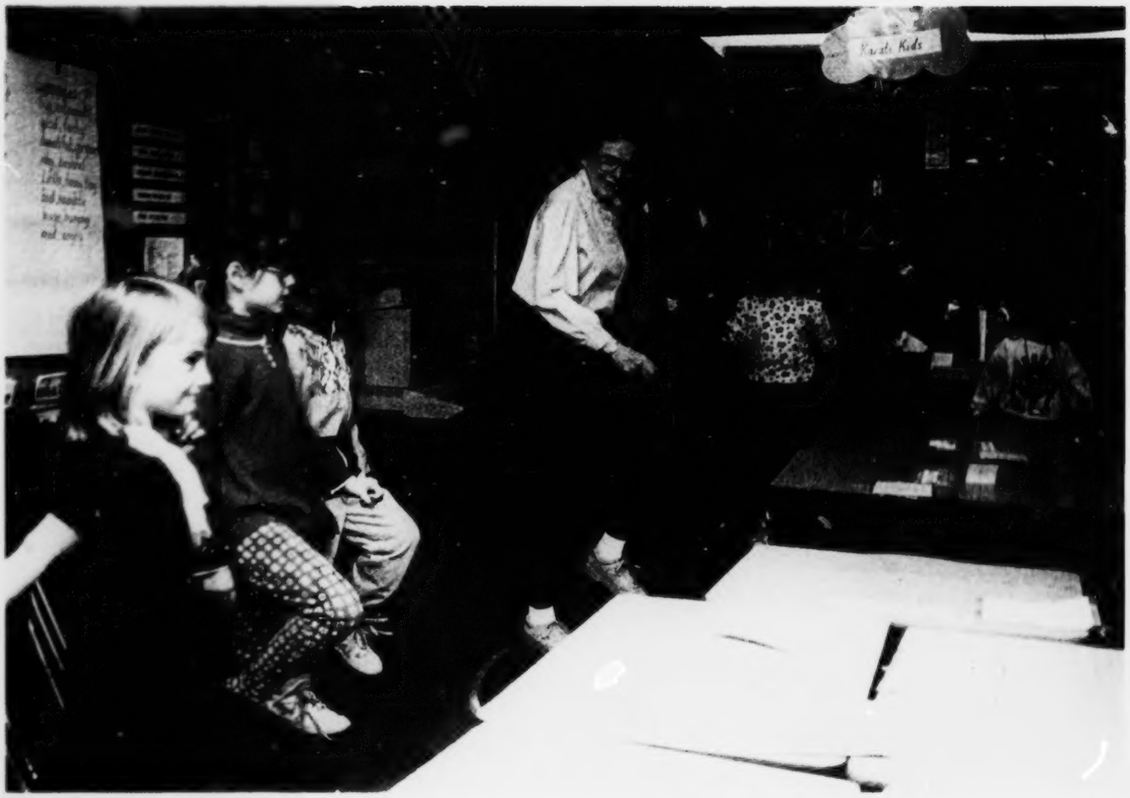
While exploring jumping, these children try taking off and landing on two feet in varied ways.

Where Does Education Through Movement Fit Into the Curriculum?

"Education Through Movement: Building the Foundation"—the program of developing the kinesthetic intelligence that is described in this book—is not an alternative to any specific area of the early elementary curriculum, including physical education. Rather, by fine-tuning children's gross-motor and fine-motor skills and thus enabling them to reach the fullest understanding of what their bodies can do, the program complements and supports other areas of the curriculum.

A time set aside for purposeful movement experiences each day is critical. On some days, this time may be combined with the music time. In kindergarten through third grade, we recommend that at least 30 minutes be devoted daily to movement and music, to *building the foundation* through providing key experiences in both of these areas. (The movement key experiences will be discussed in Chapter 3. For a discussion of music key experiences, see *Foundations in Elementary Education: Music*.) This 30 minutes need not occur in one block, but whether or not it is dispersed throughout the daily schedule, it should be time when there is *purpose*, or awareness, attached to children's movement.

Instead of being compartmentalized and relegated to only a specific period of the day, *education through movement* can flow through many other curriculum areas. Such areas as math, language, science, and social studies, for



In a second-grade classroom, one student acts as the leader for in-place marching during a transition time.

example, can be enhanced when teachers encourage children to explore new concepts through movement. Surprisingly many concepts in these various areas are motor-based or involve timing or can be given concrete meaning through movement.

Movement can also be initiated by the teacher or by students for short blocks of time during transitions in the classroom, in physical education, or in art or music classes. The beginning and ending of the morning or afternoon are suitable times for short movement activities. Often, when children are restless or distracted, a short movement exercise will serve to refocus them or calm them. Movement that accompanies music can be especially calming. Movement can also provide a source of energy, or a release from the intense concentration required by some academic endeavors.

Situations in which children will need to respond to *verbal* instructions or to *visual* material in various subject areas are another example of when movement can be brought into play. For example, a short movement activity that requires children to listen carefully and then respond with a movement might be a good lead-in to a social studies or language activity in which they will need to follow some verbal instructions. Similarly, before launching into a focused visual activity, such as reading, children might be led in a short

1.4

Half-Day Kindergarten Sample Schedule

8:30 – 8:50	Opening/circle (song & *movement*)
8:50 – 9:30	Plan–do–review
	Movement transition
9:30 – 10:30	Language/math workshop
10:30 – 11:00	Outside play/snack/*movement*
11:00 – 11:30	*Movement*/music/story
11:30	Song & Dismissal

1.5

Full-Day Kindergarten Sample Schedule

8:30 – 9:00	Opening/circle (song & *movement*)
9:00 – 9:45	Plan-do-review
	Movement transition
9:45 – 10:45	Language/math workshop
10:45 – 11:15	Music & *movement*
11:15 – 11:45	Lunch
11:45 – 12:00	Prepare for outside
12:00 – 12:30	Outside play/*movement*
12:30 – 1:00	Circle or theme activity/*movement*
1:00 – 1:40	All read/write
1:40 – 2:00	*Movement*/physical education
2:00 – 2:20	Story
2:20	Song & dismissal

1.6

First-Grade Sample Schedule

8:30 – 8:50	Opening (song & *movement*)
8:50 – 9:20	Music
9:20 – 10:30	Math workshop
10:30 – 10:45	Story time
10:45 – 11:10	Whole-group reading
	Music & movement transition
11:10 – 12:10	Language workshop
12:10 – 12:35	Lunch
	Movement start-up
12:35 – 1:05	Science/social studies
1:05 – 1:35	*Movement*/physical education
1:35 – 2:50	Plan-do-review
2:50	Song & dismissal

1.7

Second-Grade Sample Schedule

8:10 – 8:30	Opening (song & *movement*)
8:30 – 9:00	Music
9:00 – 9:30	Science/social studies
9:30 – 10:15	Math workshop
	Music & movement transition
10:15 – 11:05	All read
11:05 – 11:35	*Movement*/physical education
11:35 – 11:55	Calendar & wash-up
11:55 – 12:25	Lunch
	Music & movement transition
12:25 – 12:45	Story time
12:45 – 1:45	Language workshop
	Movement transition
1:45 – 2:50	Plan-do-review
2:50	Song & dismissal

1.8

Third-Grade Sample Schedule

8:30 – 8:55	Opening (song & *movement*)
8:55 – 9:55	Math workshop
9:55 – 10:05	Music transition
10:05 – 10:40	*Movement*/physical education
10:40 – 12:20	Language workshop
12:20 – 1:05	Lunch
	Movement start-up
1:05 – 1:45	Music/science/social studies
	Movement transition
1:45 – 2:50	Plan-do-review
2:50	Song & dismissal

movement activity that requires responding to a visual demonstration. The daily schedules in Inserts 1.4–1.8 suggest times when movement might enter the children's day in the early elementary classroom.

Children's Existing Capabilities— The Body as Primary Learning Center

To effectively implement *education through movement,* teachers must know many things about the children with whom they work—their strengths and weaknesses, their movement experiences prior to kindergarten, the environments from which they come. The child's body may be thought of as the *primary learning center*[3] when it comes to *building the foundation* for movement and for general learning. How has that learning center been prepared prior to early elementary school?

The "Primary Learning Center" in Infants and Toddlers

We know that infants first learn through the senses and movements of their body. During the sensorimotor stage of development, they are bathed, clothed, played with, smiled at, talked to, and fondled. Touch is a way for adults to communicate with them. This interaction with adults brings the initial trust and support needed at this stage of development.

As infants begin to explore the world around them, they lift their heads to look around, follow sounds (particularly those of the mother or primary caregiver), and kick and thrash with their arms and legs in nonpurposeful movements. When hanging objects are placed in the crib or playpen, they contact those objects at first in unplanned ways and later with purposeful movements. They delight in objects that make noises and soon learn that they can control exactly when those objects make noise.

An infant responds to his mother's voice as she sings to him

Infants' body awareness begins with awareness of feet and hands and eventually grows to whole-body awareness. As they grow older, infants squirm about, push with their arms and legs against objects, and eventually roll over. As evidence of their developing strength, they also begin to grasp an adult's finger or an object held by the adult. They are beginning to figure things out through the use of their bodies.

Support and interaction from adults throughout this process of motor-control development soon results in the infant learning to communicate with and trust adults. Adult support and interaction should include talking to infants about what they are doing, how they are acting, and what the adult is doing for them. It is important for infants to hear language, even if at times this language may be only coos and nonsense syllables. Hearing music combined with tactile stimulation (rocking, patting) is also important at this time—and critical for the child's later development of steady beat independence.

Not infants for long, children soon begin to sit up and view the world from a different perspective. Body control develops from the top down—first the head gains control, then the torso develops strength to retain a sitting position, and then arm and finger movements become more purposeful. Soon the child begins to creep and crawl and pull up to a standing position. Now awareness of the surroundings expands. It is possible to reach for items on the coffee table, pull out kitchen drawers, bang objects together, and drop items from the high chair. Physical development increases at a rapid rate as the soon-to-be toddler explores the world.

Crawling is a major contributor to coordination because it eventually involves the hands and knees working in opposition (that is, the right knee and left hand moving forward simultaneously). Children with insufficient crawling experience may not reach this form of oppositional movement and instead may only crawl by advancing the right knee and right hand together, and then the left knee and left hand together. Such children usually have trouble with contralateral (opposite-side) movements later in life. When children are ready to walk (and this should not be hurried), the increased strength, balance, and coordination gained from crawling serves them well.

Crawling is a major contributor to coordination. Here, 8-month-old Bradley is crawling to his mother.

Walking will turn into running and galloping if open spaces are available for children to naturally initiate these extensions of walking. Children also will experiment with walking backward and with jumping and hopping, especially if they see other children modeling these motor skills. As the child progresses from toddler to preschool age, not only does the child's body continue to be a center for learning, but the wider environment of the child becomes increasingly important to motor development, whether it be the home or a care center or preschool.

The "primary learning center"—the preschooler's own body—requires a surrounding environment that includes adequate space, equipment, and interaction with peers and adults. There must be opportunities for exploration, for both language and physical interaction, and for support of the child's ideas.

The Learning Environment for Preschool-Aged Children

The home and social environments of preschoolers have a large impact on the abilities they bring to early elementary school—the abilities on which *education through movement* can build.

A preschooler delights in clapping for his younger brother, who is trying to copy the action

The home environment, first of all, should be one in which children hear and use language. If family members eat together, is there meaningful discussion concerning the special events in each person's day, or is there only silence or television viewing? Do children eat meals with others, so conversation is *possible?* As children are transported in the car, is the focus on listening to the radio, or does conversation take place? Are young children given language that describes what they are doing, so they hear increasingly complex language spoken? Are they asked thoughtful questions that require thoughtful answers, or are they given only commands? Discussion of the days events, thoughtful questions and answers about those events or about what is viewed on television, meaningful discussions at mealtime, and stories read at bedtime all contribute to a language-rich environment for children.

Both at home and in care and education settings, young children need modeling, support, and opportunities provided by adults. Children need opportunities to express intent—to plan and to talk about what they are going to do before they act. They need opportunities to carry out their plans and then recall what they have done, as in the **plan-do-review sequence,** which is central to the High/Scope preschool and K–3 approach. Children need to be active learners rather than passive receivers of information. They benefit from experiences with younger and older children in natural play settings where they have opportunities to copy and respond to verbal communication.

For preschoolers, whose bodies continue to serve as the primary learning center, opportunity for natural play in adequate space is essential for developing the comfort with movement and awareness of space needed for the fundamental motor skills of running, jumping, hopping, galloping, and skipping. Having occasions to feel, express, and keep steady beat to rhymes, songs, and musical recordings is also important at this age. (Later, in Chapter 6, we explain the distinction between *steady beat* and *rhythm patterns*—which is an important point in the "Education Through Movement" program.)

If children experience at ages 3 and 4 the environment just described, they can develop the following movement and music abilities before entry into kindergarten:

- The fundamental motor skills of walking, running, jumping, hopping, galloping, sliding, skipping, climbing
- The manipulative skills of throwing, kicking, striking, catching
- Stopping and starting
- Rolling and tumbling
- Crawling and creeping
- Independently keeping the beat of rhymes, songs, and recordings
- Describing the movement they engage in
- Copying others' movements
- Responding to verbal directions and sounds
- Pumping on a swing
- The fine-motor skills of stringing beads or buttons, drawing, coloring, playing percussion instruments, working puzzles
- Moving to music with creative representation
- Making choices about movement
- Singing songs

To draw from and build on all these existing capabilities, the early elementary school needs to provide children with an environment rich in opportunities for purposeful movement. The most basic step is to provide a physical setting that includes adequate space and equipment for developmentally appropriate movement activities.

The K–3 Environment for Education Through Movement

Children in early elementary school continue to learn through their bodies—through both gross-motor and fine-motor activities and utilization of all the senses. For continuing physical growth as well as development of their kinesthetic intelligence, and for applying their kinesthetic intelligence in other areas of learning, children need school surroundings that support and encourage their natural urge to work through their "primary learning center."

Classrooms should provide flexible seating and room arrangements that facilitate three types of child activities occurring within the daily schedule: whole-class activities, teacher-led or independent small-group activities, and individual activities. Examples of High/Scope K–3 classrooms are provided in Inserts 1.9–1.12 on pp.16–17.

Movement activities for the most part are whole-class and small-group or partner activities; they are both teacher- and child-led, as well as teacher-

and child-initiated. For example, an adult, or a student leader, might structure or pose a movement task that involves small groups (or pairs) of students creating various solutions. ("Plan a way that the members of your group can move both arms in the same way at the same time," or "If you are standing balanced on one foot, what movements can you do with the free leg while keeping your balance?") The groups might then share those solutions with the whole class, which then incorporates these various solutions into a whole-group movement task of some kind.

The Space, Equipment, and Materials Required

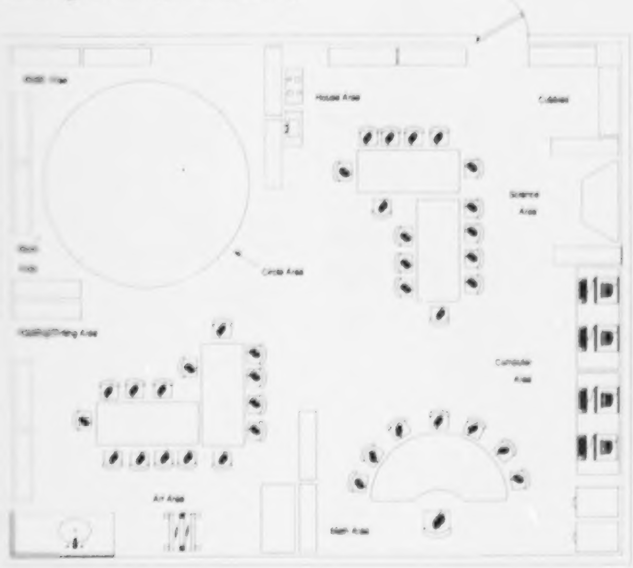
A gymnasium, a multipurpose room, or an outdoor play yard usually provides a large space, free of obstacles, that is ideal for engaging children in movement experiences. Teachers should avail themselves of any opportunities to use such spaces. The conceptual approach to movement described in this book can easily form the base of the physical education part of the curriculum and therefore be a vital link to sports and games.

Adapting the classroom to movement activities. It is less obvious that movement activities can also take place in the classroom. However, most early elementary classrooms today have furniture that is moveable, so it is easy to create or enlarge open spaces by simply rearranging a few pieces of furniture.

PE
CONCEPTS

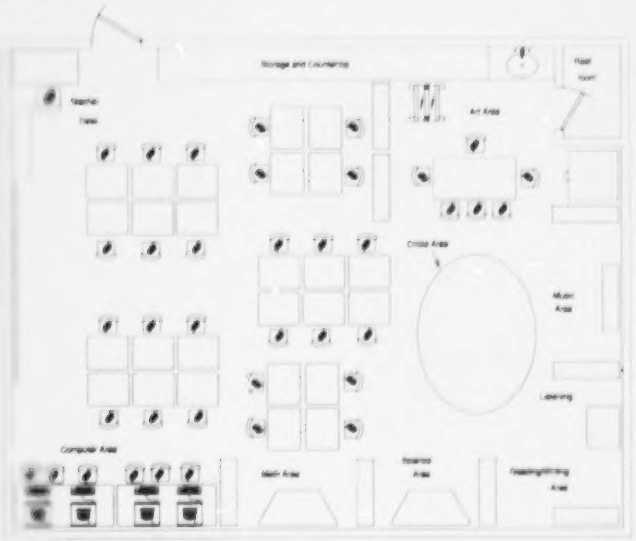
Kindergarten children are enjoying the freedom of movement that the space of the multipurpose room provides.

1.9 Kindergarten (36 ft x 30 ft)

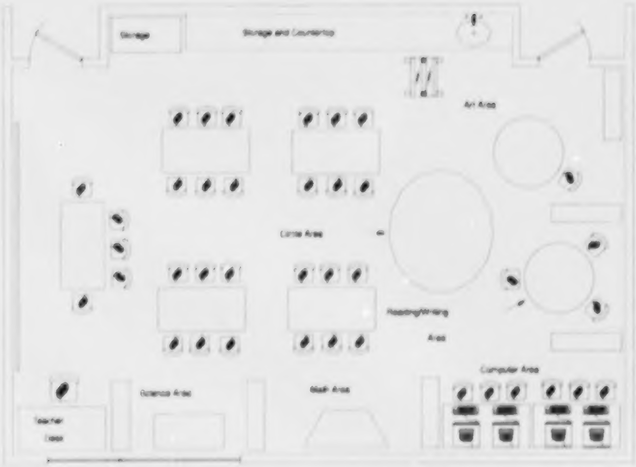

House Area
Cubbies
Science
Area
Circle Area
Reading/Writing Area
Computer
Area
Art Area
Math Area

In the classrooms diagramed here, movement activities are not confined to any one area of the classroom. The circle area is used, but children also explore movement ideas while seated in chairs or while standing throughout the room. Sometimes furniture is rearranged to provide additional open space.

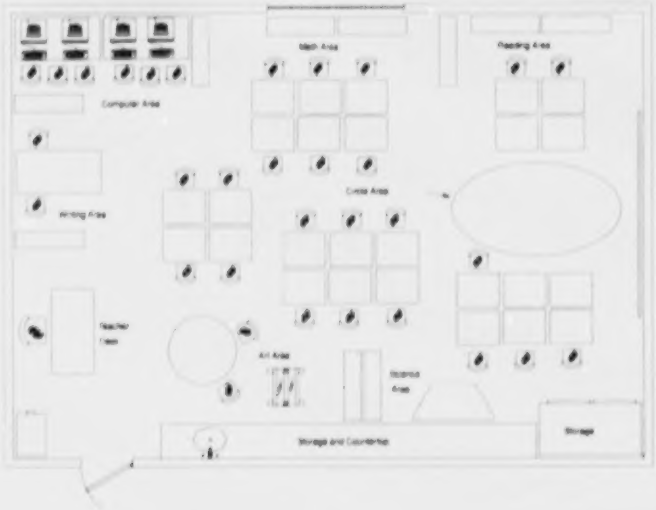
1.10 First Grade (36 ft x 28 ft)


Storage and Countertop
Rest
room
Teacher
Desk
Art Area
Circle Area
Music
Area
Listening
Computer Area
Math Area
Science
Area
Reading/Writing
Area

1.11 **Second Grade (36 ft x 26 ft)**


Storage
Storage and Countertop
Art Area
Circle Area
Reading/Writing
Area
Computer Area
Science Area
Math Area
Teacher
Desk

1.12 **Third Grade (38 ft x 27 ft)**


Math Area
Reading Area
Computer Area
Writing Area
Circle Area
Teacher
Desk
Art Area
Science
Area
Storage and Countertop
Storage

Providing safety—freedom from obstacles—should of course be paramount. With this in mind, teachers can decide which activities can easily occur in the classroom and which ones need to be reserved for larger spaces.

There is no single place or area of the classroom to which movement activities are confined. The circle area will often be useful for whole-group activity, but children might also explore movement ideas (how they can move their hands, head, or feet, for example) while seated in small groups. A designated area for quieter, seated activities, such as beat-keeping with rocking, can be set up, with a rug defining the area.

Certainly, activities that involve children moving while they stand in place require less room than those that require everyone to move about the room. Sometimes a portion of the group can move about an open area of the room, while others do their movements in place, with the two groups then trading roles.

Assembling the needed equipment and materials. In large indoor areas or during outside time, such equipment as balls, bats, racquets, Frisbees, jump ropes, rhythm wands, low balance beams (or, as a substitute, a row of large hollow blocks) can be incorporated into movement activities.

Activities carried out in more confined indoor spaces need equipment that can be safely used by the children. Suggestions include scarves, beanbags, stuffed animals, paper plates, small hoops, cones, bobbins (8-inch quills), paper cups, and rhythm sticks. If the kindergarten space is large enough, a platform with three steps on either side for climbing and jumping is a most useful piece of equipment for coordination development.

Non-skid geometric-shape cutouts or pieces of carpet can provide children with an area of "personal space" in which to move. If they are of various colors, the cutouts or carpet pieces can be incorporated into color and shape identification and pattern-making activities.

Instruments found in the music area, such as drums, tambourines, maracas, finger cymbals, and triangles, can serve as additional equipment for movement experiences. Each classroom should be equipped with a sound system for playing records, cassette tapes, or compact discs. The nine *Rhythmically Moving* recordings (RM 1–9) and the five *Changing Directions* recordings (CD 1–5) produced by Phyllis S. Weikart and available from High/Scope Press contain the musical accompaniment needed for a well-rounded movement program.

Other Essential Aspects of the Environment

The learning environment for *education through movement* includes several important aspects other than the physical setting. It also includes, for example, an approach to teaching and learning that stresses process as well as content and that considers **children and teachers as partners**—as mutual initiators and supporters of learning. More about this approach will be explained in the next chapter, in discussing the **active learning approach** and the **Teaching Model** of the "Education Through Movement: Building the Foundation" program. In particular, this discussion will describe the active learning strategies that teachers keep in mind as they facilitate children's learning process.

Another important aspect is the process-oriented teaching/learning framework provided by the following nine **key experiences in movement:**

- Acting upon movement directions
- Describing movement
- Moving in nonlocomotor ways
- Moving in locomotor ways
- Moving in integrated ways
- Moving with objects
- Expressing creativity in movement
- Feeling and expressing steady beat
- Moving in sequences to a common beat

Teachers involved in education through movement assume roles that engage students. They join with their students in carrying out student-initiated ideas.

One or more of these key experiences underlie all of the movement activities, including the extension suggestions, in Chapter 7. Working with these key experiences involves understanding the elements of what is called **the movement core,** which is diagrammed and explained in Chapter 3.

With the exception of *moving in integrated ways,* the nine movement key experiences are appropriate for learners of all ages, from preschool to adult. (*Moving in integrated ways* is appropriate for learners about age 7 or older.) Chapter 3 will discuss the key experiences more fully, including their observable outcomes and how they can be used. Chapters 4 through 6 will look at the key experiences one at a time, in detail.

Expectations for Teachers in Education Through Movement

As discussion about the learning environment has suggested, the role of the teacher in the *education through movement* approach is a departure from the traditional role of directing activities and imparting knowledge to passive students. In the true spirit of the word "educate," which means to "draw from within the learner," the role of the teacher here is to *engage* students in the learning process, to encourage them to use both their physical and mental energies. In *education through movement,* the following expectations for the teacher describe what this engagement process entails:

Teachers observe and extend student-initiated ideas. This means that the teacher, upon observing students initiating a movement idea, guides them to extend that idea in various ways.

> *During recess, several first-grade children were bouncing, tossing, and catching balls. Mr. Warner joined the group with his own ball and copied the tossing and bouncing actions of the children. He then tried a new way of bouncing the ball—one that the children had not tried. The children, seeing him do this, decided to copy this new move. The group was encouraged to talk about how they were performing the move and how the teacher had demonstrated it. After that, the children went on to try their own variations of bouncing the ball.*

Teachers initiate and facilitate active learning experiences rather than directing all of the experiences. This means that having decided which key experiences support the concepts involved in a particular movement activity, the teacher *begins* the activity with the students and then encourages them to explore, to plan, to reflect, and to find their own ways of working with the concepts involved.

> *Mrs. White, a kindergarten teacher, initiated an activity that used the concepts of* up *and* down. *She moved her two arms up and then down, encouraging the children to join her in this movement. After talking about the way their arms were moving, the children were eager to explore different ways to show* up *and* down *with their bodies. They individually invented many ways of making the whole*

body or parts of the body move up and down. Then several children shared their plans with the rest of the class, and the class copied them. A discussion of the concepts of up *and* down *followed, with children sharing information about other instances when the concepts of* up *and* down *are used.*

Teachers encourage initiation of learning experiences by all learners. This means that students' creativity and initiation are welcomed. Students often think of other ways of working with concepts that have been introduced. In fact, they often have many more movement ideas and solutions than we might dream possible.

Second-grade students had been working with a beanbag game. They had been sitting in a circle and each passing a beanbag by placing it on the floor beside the person to their right. Later that week, Cassandra suggested that they do the beanbag passing again but each toss and catch their own beanbag between passes to the neighbor.

Teachers support the application of problem solving and thinking skills. This means that small, cooperative learning groups; partners working together; and ongoing verbal interaction among the teacher, the learner, and peers all create an exciting learning environment where learners are thinking and working out solutions to movement problems.

Children in a first-grade class had been discovering repeated patterns used in their classroom. After they had found several patterns, the teacher posed this problem-solving task to small groups of children: "Choose one of the pattern ideas in the room and represent it with movement." One pattern the children had noted was a decorative border on a wall of the classroom; the border had a repeated pattern of two squares followed by one circle. Each of the small groups found a different way to use movement in repetition to represent this. One group used two jumps followed by raising both arms overhead; another group used two walking steps followed by a hop; and so on.

Teachers insure a safe, interactive environment that is free of as many "rights" and "wrongs" as possible. This means that each learner is respected for what he or she brings to the movement task, and that all are encouraged to join together to strengthen one another's knowledge. Competition is discouraged, while cooperation and support are encouraged. Students can make mistakes without being made to feel like failures. When the teacher creates a learning environment that accepts students where they are developmentally, each student is able to progress to new levels of movement understanding. Furthermore, having students work at their own developmental levels on tasks that can be executed in many ways, ranging from immature to mature patterns, minimizes inappropriate, silly, and "acting out" behaviors.

February
March
April
May
June
July
August
Aa
Ee
Uu
Friday

Younger and older learners alike each bring to the "journey" a primary learning center that has been a long time in preparation.

> *The students in Mr. Kline's third-grade class, working in pairs, explored different ways to add purposeful arm movements to a dance they choreographed. Many pairs of students shared their ideas, so the rest of the class could try them out. Some of the movements were very simple, and some complex. All ideas were accepted, and all pairs were recognized for their contributions, even though some pairs had difficulty synchronizing their chosen movements.*

Teachers extend the application of ideas to related curriculum areas. This means that movement concepts are not introduced in an isolated, restrictive way. Instead, the teacher continually looks for ways to help learners see relationships across the curriculum. When encouraged to do so, students surprise us with their capacity to relate ideas across subject areas.

> *The kindergarten children in Mrs. Bradley's class were exploring movements that were the same and different. Mark said he was doing the same movement that Jacob was doing, and Tracey said her jump was different from Cindy's. After working with the concepts of* same *and* different *for a while, the children were encouraged to think of other things that were the same or different. They talked about same and different statue shapes they had made, same and different sounds and musical notes, same and different colors, and so on.*

Getting Started With Education Through Movement

This chapter has provided the map for the journey you are about to start—in *building the foundation* in movement. The destination is clear: You now know the broad objectives of *education through movement* and why today's early elementary school children are especially in need of it.

You have prepared yourself for the journey: You have an idea of where movement fits into the K–3 curriculum—how it can be worthwhile and enjoyable in itself and can also flow throughout and support many other subject areas. If you work with older or younger learners, you know that the movement ideas in this book can be adapted to fit their learning situations as well. The practical considerations of where and when to do movement and what equipment and materials are required have been discussed. You are well aware of the most important consideration—that your partners, the children, bring to the journey a "primary learning center" that has been a long time in preparation.

The expectations for you, the teacher, are clear. Now you are about to learn more about what will be the important signposts along your journey—the **active learning approach** and the **Teaching Model** of the "Education Through Movement" program, and the **nine key experiences in movement.**

Keep in mind that your journey will be based on the theory, guidelines, and strategies of the well-proven program "Education Through Movement: Building the Foundation." Our experience with this program has shown that you can expect the following:

- Responsibility for learning is shared and children become self-directed.
- Children's base for thinking and problem solving is expanded.
- Children's individual rates of growth and needs are respected.
- Children experience observable gains in both the cognitive and kinesthetic domains.

> *You cannot circumvent the process and*
> *still experience the benefits.*
>
> Don Eddy

ENDNOTES

[1] In his book *Frames of Mind* (New York: Basic Books, Inc., 1985), psychologist Howard Gardner identifies *bodily-kinesthetic intelligence* as one of the seven basic intelligences.

[2] "Many U.S. kids fat and unfit." *Ann Arbor News*, 15 September 1989, Nation/World section.

[3] Marilyn Elias. "Clumsy youngsters fumble with math." *USA Today*, 12 December 1990, Life section.

[4] Art Snyder. "Wheeling their way to better penmanship." *Dayton Daily News*, 7 August 1990, Lifestyle section 1–C.

[5] Elizabeth B. Carlton and Phyllis S. Weikart, *Foundations in Elementary Education: Music* (Ypsilanti, MI: High/Scope Press, 1994), p. 26.

Chapter 2

Education Through Movement—The Active Learning Approach and Teaching Model

The mediocre teacher tells.
The good teacher explains.
The superior teacher demonstrates.
The great teacher inspires.
William Arthur Ward

One popular dictionary definition of "teach" is to "impart knowledge or skills, to show or help to learn." What is most significant to us in this definition is the phrase **"help to learn."** These words suggest the **facilitative role of the teacher** and the **teacher/learner partnership** that is central to *education through movement.* As indicated in the expectations for teachers outlined in Chapter 1, the teacher's role in *education through movement* is not to be a director of children's activities and a dispenser of information. Instead, in keeping with the High/Scope philosophy, an **active learning approach** is used.

The teacher both introduces ideas and recognizes opportunities to support and extend ideas initiated by children—the "teachable moments." Because "to do is to understand," this initiation of ideas by both teacher and children is supported by encouraging children to explore those ideas through purposeful movement. Children plan variations on basic movements, make choices, share ideas, and talk about their experiences to promote greater awareness of motor tasks. The teacher helps children to reflect on what they have done, to bring their purposeful movement to a level of verbalization. In this way, they develop ownership—personal understanding and ability to apply movement concepts.

This chapter describes in detail each of the following strategies of the **active learning approach** as developed in the "Education Through Movement" program:

- **Initiation by teacher and students**
- **Exploration of purposeful movement**
- **Choices and planning by students**
- **Language listened to and supplied**
- **Facilitation and reflection**
- **Support from teacher and peers**

Along with this active learning approach, we have developed a **three-component Teaching Model** that has been successful in engaging learners ranging from preschoolers to adults. The model has also been effective with special populations of physically and mentally challenged learners. The three components of the Teaching Model—**separate, simplify, and facilitate**—are broad enough in scope to accommodate the needs of learners who are at various stages of development (see Insert 2.1). Furthermore, as the latter part of this chapter will explain, the elements of the **Teaching Model** mesh smoothly with the **active learning approach.**

2.1

Developmental Considerations

The ease with which learners of any age grasp movement ideas often is the result of the approach the teacher uses. Before initiating movement experiences, teachers ask themselves two questions:

1. Is the experience appropriate for the *developmental level* of the learners and *germane to the concept?*
2. Is the experience appropriate for the *age* of the learners?

Explanations of the term *developmentally appropriate* often refer to rough age-ranges in describing the various stages of development. We choose, however, to consider the *age* of the learner separately from the *developmental level*, because we believe the two components create the need for using separate strategies for engagement.

In considering developmental appropriateness, the teacher takes into account learners' previous experiences, their present skills, and their various learning styles. Another important consideration is whether an activity includes possibilities for everyone in a group to achieve some success, some ownership of concepts.

In considering age-appropriateness, the teacher decides whether the rhyme or song or musical selection to be used is suited to the age of the learners. Also, are the movements age-appropriate? For example, patting the head, ears, or chin works well with young children but not so well with teenagers or adults. For these older learners, it is better to use patting of knees and shoulders and motions away from the body, such as punching the air, shaking both hands, pushing outward with the hands.

An interesting note is this: When students initiate their own learning experiences, developmental level or age is not an issue. Learners naturally initiate movement experiences that are developmentally and age-appropriate for themselves!

We will say more about developmental and age appropriateness as we discuss the use of the movement key experiences in *building the foundation*

The Active Learning Approach Used in Education Through Movement

Children who are absorbed in a learning task usually display an energy and zeal that is often found lacking in many of today's classrooms. Teachers who use an active learning approach can restore those qualities in children, changing them from passive receivers of information to active constructors of their own knowledge. Children in an active learning setting assume responsibility for managing their own behavior, and a productive learning environment becomes the norm. Furthermore, teachers report that the approach is enjoyable to use, most often results in higher achievement for children, and gives teachers renewed energy and dedication to the profession. A closer look at the strategies of the approach will explain why.

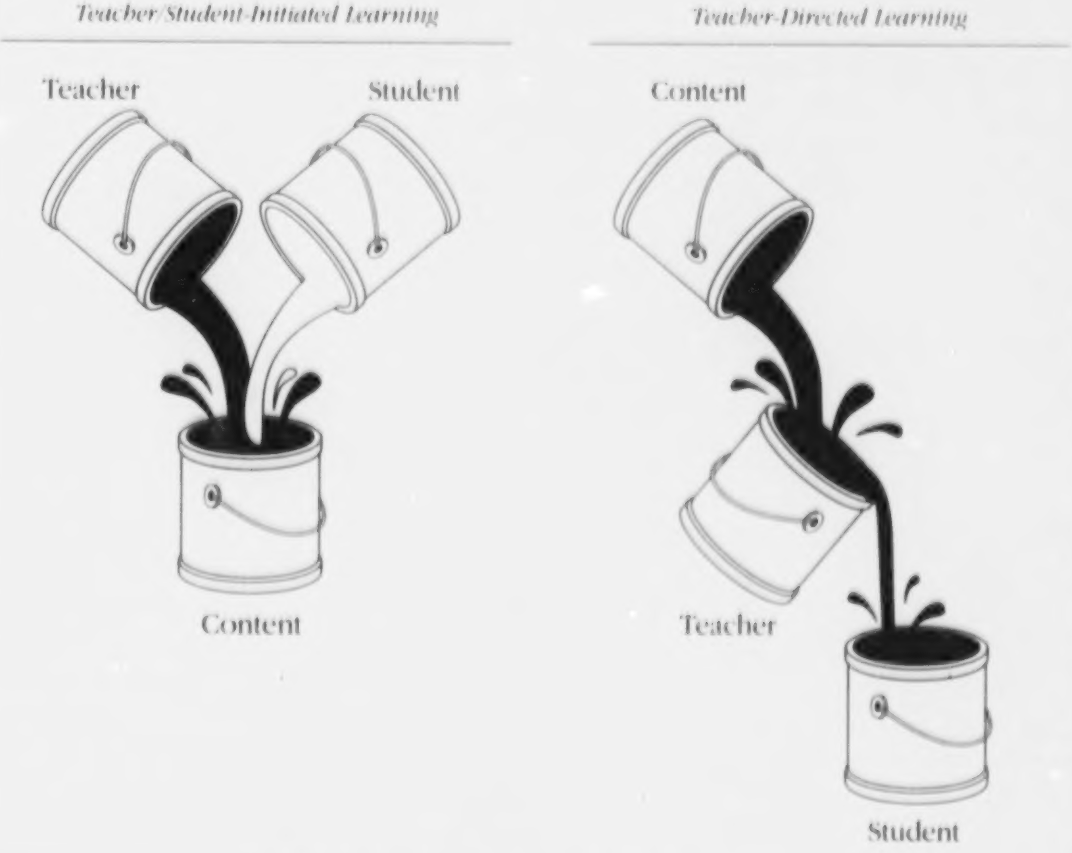
The Approach Promotes Initiation of Ideas by Both Teachers and Students

Initiation of ideas by both teachers and students, first mentioned in Chapter 1, is critical to successful learning. A classroom example related to mathematics might best illustrate this point: Suppose the concept to be considered is estimation of distance. The teacher might initiate the concept by posing a task to the children—they should somehow plan a movement activity to determine how far it is from one side of the gymnasium to the other. Children work in small cooperative groups to initiate ideas about how to use their bodies to measure distance—they consider moving across the gym taking "giant" steps; taking small, heel-to-toe steps; hopping; jumping; etc. As the groups discuss their ideas, the teacher observes and asks them questions to help them extend the various ideas they come up with. Suggestions from all are encouraged.

When student-initiation is incorporated in this way, teachers find that students generally maintain high interest. Furthermore, the ideas that are mutually generated far surpass those generated by teacher-directed learning (see Insert 2.2).

2.2

Teacher/Student-Initiation Versus Teacher-Direction



Teacher/Student-Initiated Learning

Teacher-Directed Learning

Children who are absorbed in a task display energy and zeal. Use of the active learning approach changes children from passive receivers to active constructors of knowledge

The Approach Promotes Exploration of Purposeful Movement

Having opportunities to explore and work with movement concepts leads to true understanding and ability to apply those concepts. Continuing with the measurement example, the movement exploration might proceed as follows: Each group of students, after deciding on a movement using some body part, has various group members try traversing the gym using that movement. Some groups find that their chosen movement yields different measures for different students—Jamal finds that the gym is 20 giant-steps wide, but Kelly finds that it is 30 giant-steps wide. They try another body movement—taking tiny, heel-to-toe steps—and Jamal's and Kelly's measures are more similar. One group member suggests not moving across by foot but "walking" someone's hands, end-to-end, across the floor. The exploration continues.

The Approach Promotes Choices and Planning by Students

Since the teacher's initiation of the gym-measurement task, the students have enthusiastically taken over planning and choosing how to proceed. They heatedly discuss among themselves the pros and cons of using any particular type of movement as the "unit of measure" for the measurement task. Once each group agrees on the "best" unit to use, they decide to do their group's "official" measurement of the gym's width. They have truly taken on ownership of the task and its solutions.

Children choose the physical "unit of measure" they will use for the measurement task

The Approach Promotes Language Use

Throughout a movement activity such as this one involving measurement of the gym, there is much verbal interaction—language *listened to* and *supplied*. Conversations occur among students and between the teacher and students. Activity participants both hear and produce language that describes movement from their various perspectives: "Jamal, your giant steps are bigger than mine." "Kelly, how are your small steps different from Jamal's?" The teacher adds questions that do not intrude but instead serve to stimulate thinking skills: "What are some other ways you could move across the gym to measure its width?"

An important role for the teacher is to reinforce with language many of the things students are doing. This enables students to develop not only movement abilities but also cognitive understanding of what their bodies are doing when those abilities emerge. Supplying students with language also helps them to *transfer learning*, to make associations from existing knowledge to new knowledge.

The Approach Promotes Facilitation and Reflection

After students have participated actively in a task like the gym measurement, their learning is facilitated (they are "helped to learn") by questions from the teacher. These questions encourage them to reflect on their experience, to draw conclusions from it, to think about other ways they might have proceeded, to think of what made the experience hard or difficult, and so on. This reflection also helps the teacher to evaluate whether students' understandings are secure. It may help to determine that students need additional, varied experiences to achieve ownership of a particular concept.

A teacher's support helps students reflect on their experiences

Therefore, in a sense, the students' reflection leads to reflection by the teacher as well. In our experiences teaching movement and music, after a session is concluded, we evaluate each concept and discuss both the strengths and weaknesses of our presentation. This reflection, which supports better future decisions, is a critical piece of the educational process for any teacher.

The Approach Includes Support From Teachers and Peers

A supportive environment is essential if we are to help students construct new knowledge and develop new skills by building on their existing capabilities. For example, in the gym-measurement task, Noah might volunteer to hop across the gym to try out that way of measuring its width. If he has difficulty doing this, the teacher's support might be to ask, "Would you consider changing the way you travel across the gym so it is easier for your group members to count your moves?" The teacher would then be acknowledging Noah's efforts and giving him a strategy to make the task easier for himself and the rest of his group. This would model for the students a positive and encouraging way to respond to Noah's difficulty.

Providing a positive, supportive classroom atmosphere means realizing that teachers and students are on the educational journey together; each person brings something valid to the journey. Students who try and still fall short of the "correct" answer are *on the way to getting it right; no one who tries is ever completely wrong*. If teachers set the tone in a classroom for students' support of one another, then the classroom becomes an exciting rather than a stressful or humiliating place to learn.

Supporting and meshing with the just-described elements of the **active learning approach** is the **Teaching Model** used in *education through movement*. The remainder of this chapter deals with this model.

The Teaching Model Used in Education Through Movement

The three-part Teaching Model (see Insert 2.3) described here was developed as part of the "Education Through Movement" program. However, it has often been applied to other subject areas as well. Educators in math, science, language, music, physical education, dance, special education, and drama report using aspects of the model successfully. They have found that using the model's three components—the **separate, simplify, and facilitate** strategies—can lead to an increased sense of responsibility in learners and to a decreased need to "reteach" concepts after they have been introduced. A close look at each of the components may explain why such favorable results occur.

2.3

"Education Through Movement" Teaching Model

Separate: Demonstrate
or
Tell
or
Use hands-on guidance

Simplify: Begin with what is easy or manageable to learn

Facilitate: Engage learners through action, thought, and language

The "Separate" Component

This component involves presenting experiences or information by using only one mode of presentation at a time. Students receive sensory information in three distinct ways that correspond to the following three modes of teacher presentation:

- By **demonstration,** which means that the student must visually process in order to respond
- By **verbal (spoken) directions,** which means that the student must aurally process in order to respond
- By **hands-on guidance,** which means that the student must use tactile processing in order to respond

By choosing to **separate,** to use only one of these three modes of presentation at a time, the teacher allows children to focus on a single message. Combining one or more modes of presentation—telling while showing, or telling while giving hands-on guidance, for example—often gives children too much sensory input. Instead of integrating the input from different senses, some children naturally use their strongest learning modality and block out information from the other senses, or worse yet, they miss the information entirely because of the confusion of using two senses at once.

We have found that with students of *all* ages, using the **separate** strategy captures the learner's attention and leads to higher success in learning. In addition, each learning modality is strengthened in the process (see Insert 2.4). However, it is important to use an appropriate *balance* between the different modes of presentation. Consider what each mode involves:

Demonstration. The teacher usually precedes the demonstration with a statement that gains children's attention, so they know what to watch and what they are going to do with the information. ("Watch what my arms do, and join

Employing the ***separate*** *strategy to engage students, the teacher uses demonstration (upper left), verbal directions (bottom), and hands-on guidance (upper right).*

me when you are ready.") Then the teacher, *without speaking,* silently **demonstrates** an arm movement (swinging both arms in front of the body). After the children join in, successfully copying the teacher's movement, additional verbal information can be given (but the movement does not stop, since this movement is now "on automatic," meaning children do not have to think about it while they do it). If listening for the new spoken direction while moving *is* difficult for the children, the teacher stops the movement to give the additional information ("I'm going to change the movement"). Then the new movement is demonstrated silently, just as the first one was.

2.4

Separate "Chalk" From "Talk"

The habit teachers at all levels have of talking while they write on the chalkboard produces sensory overload for some students—even at the college level. When expected to process information aurally and visually *and* write notes, students can miss a lot of information. A similar problem exists when a teacher talks while showing slides. Using the **separate** strategy would mean giving a verbal explanation before writing on the chalkboard or showing slides, then giving students time to absorb what they see, then continuing the verbal explanation.

Skills in sports and dance, techniques used in art, and many movement-based tasks in other subject areas are often effectively presented with this silent demonstration method.

Verbal (spoken) directions. The teacher usually precedes the verbal presentation with "Please listen and follow these directions." This statement lets children know that important directions are to come. *Without demonstrating,* the teacher then **tells** them what to do ("Find as many different ways as you can to travel in a straight pathway"). For children who need further explanation, the teacher might then **demonstrate,** without speaking (for example, taking several hops forward in a straight pathway). This would be a case of using verbal directions and then demonstration—one at a time, but not together.

We have found that it works well to use only a verbal presentation for movement that does not need to be performed in an exact way. Hearing a description, without seeing a demonstration, allows children to interpret the movement idea in a variety of ways.

Hands-on guidance. The teacher, after gaining permission to touch the child, might say, "I'm going to raise your arms over your head." This is a verbal start-up. Then, without any further verbal information, the teacher uses hands-on guidance to raise the child's hands overhead. The hands-on assistance and verbal directions do not occur simultaneously (see Insert 2.5).

Chapter 4, which deals with the movement key experience *acting upon movement directions,* expands on what has been said here about the three modes of presentation. There we explain a series of movements for response—stages—designed to improve children's visual, aural, and tactile processing. Ability to process and then respond to directions can improve dramatically when the **separate** strategy is used.

2.5

Using the "Separate" Component With Special Populations

The **separate** strategy is particularly useful when a teacher is working with special populations. For example, a visually impaired person in a folk dance workshop relied on the teacher's hands-on guidance to understand the stylistic additions to the movements of each dance. He would say to the teacher, "Place my foot in the correct position for the lift." Students who cannot see or adequately process visual information can often learn through verbal directions or hands-on guidance. For hearing-impaired students, the visual or hands-on method is effective.

The "Simplify" Component

This component involves beginning with what is easy or manageable to learn, so all children can become immediately engaged in the active learning process and experience success. This means that the teacher first considers children's present capabilities, so they may be built upon. The teacher also determines the subtasks that make up a task, using knowledge of the skills prerequisite to development of movement abilities. With these factors in mind, the teacher begins with what is easy and builds up to what is more difficult.

The **simplify** component plays an important role when the teacher is selecting developmentally appropriate activities based on curriculum concepts. Observing children when they are exploring movement or when they are in cooperative learning groups can aid in selecting and promoting active learning

A student uses the ***simplify*** *strategy to lead symmetrical movement of two corresponding body parts. She holds the movement static, with endpoints against the body.*

experiences that are relevant to individual needs and to understanding specific concepts. Some questions for teachers to ask themselves are

- How will I help students understand this concept?
- Is purposeful movement exploration useful here?
- What known patterns or coordinations are involved, so children can work from the known to the unknown?
- What part of this activity might be difficult?
- Would it be helpful if children first worked with their own timing and coordination, that is, "tried it on for size"?
- How can I facilitate children in moving from exploration to understanding of the movement concept?

Once these questions are answered, the teacher is ready to **simplify** the whole into small, manageable tasks that will be worked with and then united into a meaningful learning experience.

Occasionally, teachers express concern that using the **simplify** strategy slows them down. Our reply is that using the strategy is well worth the extra moments that it takes if it results in children attaining true ownership of concepts.

Some guidelines for using the **simplify** strategy are explained in the following paragraphs and summarized in Insert 2.6. Technical terminology used in the guidelines is briefly explained in parentheses, and references to later chapters explaining the terminology are also given. A Glossary on page 387 and Insert 3.1 in Chapter 3 ("The Movement Core") give more complete definitions of movement terms. These guidelines should help in selecting activities that are developmentally appropriate for children.

26

Guidelines for the "Simplify" Strategy of the Education Through Movement Teaching Model

Simple ➤	*More Complex* ➤	*Most Complex*
static movement		dynamic movement
movement with endpoints against body		movement with endpoints away from body
upper-body movement		weight-bearing lower-body movements
trunk movement	limb movement	finger, toe movement
gross-motor movement		fine-motor movement
nonlocomotor movement	locomotor movement	integrated nonlocomotor and locomotor movement
movement without object		movement with object
symmetrical movements		asymmetrical movements
nonlocomotor:		
two sides	one side	alternating sides
locomotor:		
alternating sides	two sides	one side
single movement		sequenced movement
personal space		general space
movement alone with one's internal beat		movement alone with specified external beat
movement alone with one's internal beat		movement timed with a partner or group
nonlocomotor movement to a slow beat		nonlocomotor movement to a fast beat
locomotor movement to a beat close to internal beat		locomotor movement to a beat unlike internal beat

Guidelines Concerning Simple-to-Complex Tasks

In judging how easy or difficult a movement task is for children, these are some points to remember:

- **Static movement (movement that pauses) is simpler to follow than dynamic movement (continuous movement).** When demonstrating a skill, there are logical stopping points that permit children to see exact placements of the upper or lower body. Examples are (1) pausing with both hands placed on the knees before beginning to pat both knees in steady beat, (2) pausing to show the exact relationship of the upper body to the lower body in an underhand throw after the foot opposite the throwing arm is brought forward in a step, and

(3) pausing to show the style of the leg in a LIFT movement in a folk dance. The pause might be used before or after demonstrating execution of the whole skill.

- **Movements that have endpoints against the body are easier to perceive than movements with endpoints away from the body.** When demonstrating static movement or movements in steady beat or coordinated movements, if the movements are performed against the body, children perceive them more accurately because they can see the relationship of one body part to another.

- **Movements of the upper body generally are easier to perform than the weight-bearing movements of the lower body.** This is based on the principle that body movement develops from the head to the foot. (Recall how the infant first develops head control and later ability to stand and walk.) Weight-bearing movement requires more strength, balance, and coordination.

- **Trunk movement is easier than limb movement, which is easier than finger or toe movement.** This is based on the principle that body movement develops from the center of the body outward to the fingers and toes.

- **Gross-motor movements are easier than fine-motor movements.** It is easier to move trunk, arms, and legs than to manipulate crayons, pencils, and scissors with the fingers.

- **Nonlocomotor movement (movement with the body anchored, without weight transfer) is generally easier to coordinate than locomotor movement (movement with the body not anchored, with foot patterns and weight transfer). Integrating (combining) nonlocomotor and locomotor movement is the most difficult of all.** Additional balance, strength, and coordination are needed when body weight is transferred. One way to **simplify** is to have children perform many kinds of leg movements while seated (anchored), before asking them to perform them with the body not anchored.

- **Movement without an object is easier than movement with an object.** Consider having a child "finger" a musical instrument without using the instrument, to first develop the finger and arm coordinations needed for success with the instrument. Children might be given movement "problems" to solve, such as showing the pattern their arms will follow in throwing or striking a ball.

- **Symmetrical movement (the same movement done by corresponding body parts) is easier than asymmetrical movement (different movements done by corresponding body parts).** Both arms (or both legs) doing the same movement at the same time is easier than one arm (or leg) doing one kind of movement while the other does another kind of movement. Doing the breast stroke in swimming is an example of symmetrical arm movement. Playing the piano or the violin requires asymmetrical arm movement.

- **Two hands, arms, or legs doing nonlocomotor movements at the same time is easier than one side moving alone.** The nonpreferred side of the body is more successful in moving when it moves simultaneously and in the same way as the preferred side.

- **Nonlocomotor movement of two sides of the body together, or of one side alone, is easier than alternating nonlocomotor movement.** Movement such as patting both knees with both hands simultaneously or patting the right knee with the right hand is easier than patting first the right knee with the right hand and then the left knee with the left hand.

- **In locomotor movement, alternating is the easiest, followed by two sides moving together, followed by one side moving alone.** A good illustration is the fact that walking is easier than jumping, which in turn is easier than hopping. Additional balance and strength are needed for jumping and hopping.

- **Single movements are easier than sequenced movements.** Single movements include one movement that starts and then stops (e.g., moving hands from head to shoulders), as well as one movement that repeats over and over (e.g., patting knees several times). Sequenced movements are two or more different movements that follow one another in a pattern. A jump followed by a hop is a two-movement sequence. Striking a ball involves a sequence of several movements.

- **Personal space (the area immediately around a person) is easier to manage than general space (the total movement area that is available, i.e., a room or a field or a gym).** A person moving out of personal space must control his or her body so as not to bump into others. Having a few children move in general space while others move in personal space is a **simplify** strategy that helps everyone to become comfortable with and able to use general space.

Movement in personal space is easier to manage than movement in general space.

- **Performing movement alone without a specified external beat is easier than performing movement alone with a specified external beat.** When moving alone, moving to the steady beat of one's own internal timing is easier than moving to the beat established by another person or the beat of a rhyme, song, or recording.

- **Movement performed alone, according to one's own timing, is easier than movement synchronized with a partner or group.** Children need some practice time alone with any new movement. We refer to this as time to "try it on for size."

- **Performing nonlocomotor movement to a slower beat is generally easier than performing nonlocomotor movement to a faster beat.** Using a slow beat gives children more time to process and respond.

- **Locomotor movement is usually more successful when performed to a beat that is close to one's internal timing rather than to a beat that is faster or slower than one's internal timing.** For performing locomotor movement, a faster external beat is easier to use than a slower one, because a slow beat requires more balance.

It should be noted here that some concepts should be delayed at least until second grade because of the level of motor development they require. (See insert 2.7.)

In addition to the guidelines just outlined, which should enable teachers to make choices about developmentally appropriate activities, here are some specific ways to simplify tasks:

1. Simplify a two-movement (sequenced) task by breaking it into its two components. Each single movement can be presented with a pause (static movement) before the two movements are united.

2. Simplify a four-movement task by breaking it into two sequences of two movements each. This would mean preparing each two-movement sequence before uniting them into a four-movement sequence. If children have difficulty uniting the two sequences, try stopping when you are one movement beyond the first sequence. For example, if the combined sequence is HEAD, SHOULDERS, KNEES, WAIST, try stopping on KNEES to create a bridge between the two sequences, or stop on HEAD as you go into a repeat of the four-movement sequence. More information on movement sequences is presented in Chapter 6.

2.7

Concepts to Delay Until Second Grade

Visual correctness (mirroring)

Verbal correctness (specific right and left directions)

Inhibited movements (one side of the body holding still while the other side moves purposefully)

Alternated sequences of movement (two or more movements completed on one side of the body before repeating the same sequence on the other side)

Movement to rhythm of words or melody (Steady beat needs to be secure before rhythm is introduced.)

3. Simplify an integrated movement (arm sequence joined with leg sequence) by working with each sequence separately before uniting them. Students might learn the leg sequence first and then layer on the arm sequence. Or they might practice the arm sequence while just reciting the learner SAY & DO words established for the leg sequence (see the Glossary for *learner SAY & DO*), and then unite the two sequences. Further explanation of integrated movement is found in Chapter 5.

4. Simplify an action song by developing the sequence of movements before adding the words and melody of the song. Movement, once learned, can go on "muscle memory"—that is, it can be performed without thought. Following the words and melody, however, requires thought. Therefore, it is easier for children to concentrate on perfecting the movement first, then the song.

5. Simplify performing movement with an object by first practicing the movement without the object. As noted in an earlier guideline, moving *with* an object is the more difficult task. Therefore, it helps children to first practice a movement while they *imagine* holding the object, then practice the same movement with the object. Additional information on moving with objects is found in Chapter 5.

6. To make movement experiences nonthreatening for children, encourage them to be leaders and to make choices about movement. When children see a classmate demonstrating a movement, they perceive this as simpler than following an adult's demonstration. A child is likely to think, "If my friend can do the movement, perhaps I can do it too."

7. To promote children's initial success with movement, use movements that are free of "right" or "wrong." This means, for example, beginning with movements that do not require children to use or identify a specific (right or left) side of the body (see Insert 2.8).

2.8

Distinguishing Right From Left

Students who are developing understanding of right and left side of the body need to have a wide variety of active learning experiences that lead to ownership of this concept. Putting a sticker on a child's right hand does not help the child to develop lasting ability to tell right from left. It merely acts as a Band Aid; when the Band Aid is removed, the child may still not have ownership of the concept.

The teacher can help young children to learn "right" and "left" by an ongoing process of verbally labeling the purposeful movements children engage in: "Brian, you are hopping on your right foot, and Lucinda is using her left foot." "We are going to turn left at the blinking light." "Suzette, which hand do you want to use for the shaking movement?" If Suzette demonstrates which hand, the teacher can then ask her if she knows which hand it is, or the teacher can verbally label the hand for her: "Suzette, you are shaking your right hand." When children initiate movements or movement patterns and then share them with the class, either the child or the teacher can label right and left in these situations also. By such repeated exposure, over time, to the right/left concept, children eventually achieve ownership.

The "Facilitate" Component

The first two components of the Teaching Model are strategies that teachers use in presenting concepts and in planning and initiating activities. The third and last component of

Students should be encouraged to initiate their own movement ideas.

the Teaching Model—the **facilitate** strategy—concerns all the ways that teachers engage children through action, thought, and language as they support them in developing awareness and skills and constructing their own knowledge. In short, the **facilitate** strategy ties in with the elements of the **active learning approach.**

Teachers **facilitate** when they encourage and support children in initiating their own ideas and experiences. They **facilitate** when they give children time to explore movement concepts on their own, to apply existing understanding and skills to a movement task. They **facilitate** when they provide time for children to work alone, with partners, or in small groups, planning and making choices about how they will solve problems. (See Insert 2.9.)

Teachers also **facilitate** when they supply language, so children can accurately label what they are doing, and when they listen and respond to the language children use among themselves. Asking children to talk about what they are going to do (to plan), to describe what they are doing, and to reflect on what they did (to recall) are other ways to **facilitate.** Asking children questions that provoke thought is another way to **facilitate** (see Insert 2.10). Finally, providing a safe, interactive environment where teachers and children all work as partners and support one another is the most important of all the ways that teachers **facilitate** the learning process.

2.9

Examples of the "Facilitate" Component

In contrast to the teacher-directed approach, the **facilitate** component of the Teaching model encourages child-initiation, child-choice, and child-planning.

- The setting is physical education class. Children work by themselves, with a partner, or in a small group and explore the concept of ball passing. Faced with the problem of finding as many different ways of passing the ball as possible, they discover bounce passes, chest passes, shovel passes, passes with one or both hands, passes under- or overhand, and so on.

- The setting is the classroom. The teacher has posed to the students the problem of finding different ways to bend and straighten their arms and then to see what other body parts they can bend and straighten. After students individually explore bending and straightening, several students share their ideas with the class, and the other children and the teacher try out their ideas.

2.10

Asking Divergent Questions

The types of questions posed by teachers to elicit a language response from children can be grouped as follows:

Divergent, or open-ended, questions, for which the teacher does not have an exact response in mind, are the most thought-provoking. For example, the teacher might ask a child, "How were you able to keep from bumping into others as you moved about the room?" or "Why did you choose hopping across the gym as a way to measure its width?"

Convergent, or closed-ended, questions that engage children to understand one or more concepts or to make connections or choices between concepts are not as thought-provoking as the divergent questions. They do, however, serve a purpose: "Did you move with your body high or low?" "What kind of a pathway did you follow?" Convergent questions that have a "correct" yes or no, or single-word, answer are useful on occasion, but should not be the teacher's primary method of questioning.

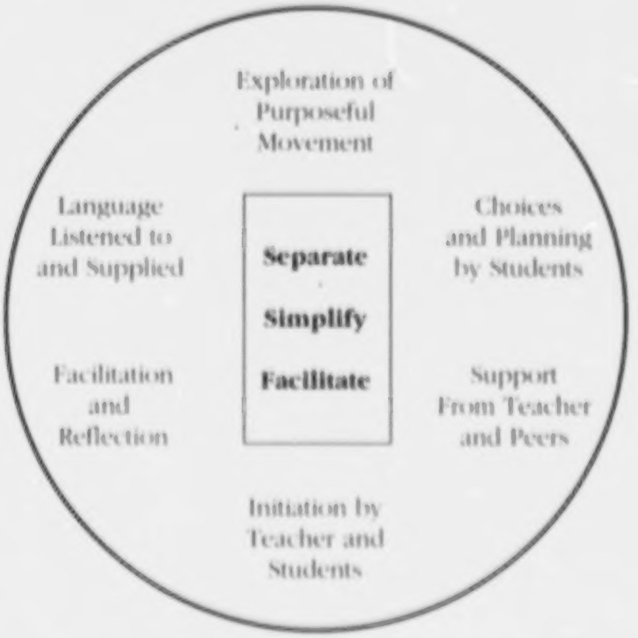
Summary

This chapter has described two very important aspects of the environment for *education through movement*—the **active learning approach** and the **Teaching Model.** Taken together (see Insert 2.11), the active learning approach and the Teaching Model might be said to constitute a way that a teacher can *inspire*, or "lead from behind." The signs of this kind of leadership are unmistakable. The teacher is inspiring children when they

- Explore ideas rather than passively accepting what the teacher dictates
- Have opportunities to lead and make choices instead of always following the teacher's lead and choices
- Feel free to express ideas instead of thinking that they can only speak when asked a question by the teacher
- Initiate experiences instead of always following along with teacher-directed experiences
- Feel safe in trying and making mistakes instead of always needing to have the "right" answer
- Are encouraged by positive, descriptive statements from the teacher ("Jarod is hopping on his left foot.") instead of by individual, judgmental praise ("I like the way Isobel is moving.")
- Respond to the teacher's comforting voice-quality instead of responding only when they hear forceful, threatening language

2.11

Education Through Movement—
The Active Learning Approach and Teaching Model


Exploration of Purposeful Movement
Language Listened to and Supplied
Separate
Simplify
Facilitate
Choices and Planning by Students
Facilitation and Reflection
Support From Teacher and Peers
Initiation by Teacher and Students

- Learn from hearing their actions correctly labeled ("You are galloping forward and then backward.") instead of from hearing the teacher "fish for answers" ("Who knows how Martin is galloping?")
- Have opportunities to answer thought-provoking, divergent questions instead of convergent ones
- Have time to reflect on their actions and evaluate them instead of ending every learning experience with a teacher wrap-up or no closure at all
- Learn in an environment where everyone *inter*acts instead of one in which the teacher *acts* and the children *re*act
- Engage in cooperative, group tasks instead of individual, competitive tasks
- Are allowed to process new information using visual, aural, or tactile processing, one at a time, instead of having all senses engaged at once

- Are helped to build on existing knowledge and abilities—to go from what is simple to what is more complex—instead of being faced with developmentally inappropriate experiences that do not address their needs
- Are engaged in learning experiences that have a conceptual base instead of activities with no particular conceptual focus
- Arrive at understanding and ability to apply concepts—ownership—instead of needing to have concepts taught and retaught several times

Clearly, use of the **active learning approach** and the **Teaching Model** results in a new kind of educational delivery system—one in which teachers manage the *environment* rather than the *children*. This is a paradigm shift that has implications for teachers of movement and music as well as for teachers of any subject area.

In teaching, it is the method and not the content that is the message . . . the drawing out, not the pumping in.

Ashley Montagu

Part 2 Key Experiences in Movement

Chapter 3

The Movement Key Experiences— A Process-Oriented Approach

> *Learning is not accumulation of knowledge.*
> *Learning is movement from moment to moment.*
>
> J. Krishnamurti

The last important aspect of the teaching/learning environment for *education through movement* is the kinesthetic framework for this process-oriented approach. Providing the framework for this approach are the nine **key experiences in movement** introduced in this chapter. Teachers use these key experiences to recognize and assist the fundamental learning that takes place in the early elementary grades. These same key experiences are also important for both younger and older learners. The movement key experiences are developmentally sequenced and are described in terms of **actions performed by learners.**

The concept of *key experiences* is a hallmark of the High/Scope approach to preschool and early elementary education. There is a set of key experiences for each curriculum area. (For an example of the key experiences relevant to another curriculum area, see the K–3 key experiences in music on pp. 56–59 of *Foundations in Elementary Education: Music.*)

As shown here, the nine developmentally sequenced key experiences in movement (each marked with a key symbol) are divided into three broad categories:

Engaging the Learner

- Acting upon movement directions
- Describing movement

Enabling the Learner

- Moving in nonlocomotor ways
- Moving in locomotor ways
- Moving in integrated ways
- Moving with objects

Extending the Learner

- Expressing creativity in movement
- Feeling and expressing steady beat
- Moving in sequences to a common beat

Fifth-graders are comfortable participating in step aerobics, an activity requiring integrated movement, visual processing, basic timing, and beat coordination.

Taken together, these key experiences are designed to *build the foundation* for learners of any age (*moving in integrated ways* is appropriate only for second grade and above). They include the breadth of kinesthetic experiences that early elementary children need if they are to function adequately with *strength, balance, coordination, timing,* and *awareness of personal and general space*. They also address types of awareness and abilities that are part of the total education of the child—responding to aural, visual, and tactile information; attending and concentrating; basic timing and beat coordination; creativity and problem solving; language abilities; planning and decision-making. The key experiences in movement prepare children (and learners of all ages) for many experiences to come in their lives, and in particular, for the numerous social and fitness experiences so important to adults today—games, sports, dance, aerobics, and participation in musical ensembles.

Keeping the nine movement key experiences in mind helps teachers to concentrate on working with learning processes rather than on conveying information. Familiarity with these key experiences enables teachers to plan for, recognize, and encourage important active learning experiences in movement in the classroom. It is also important that the movement key experiences be seen as compatible with and connected to the key experiences in other subject areas, since the kinesthetic mode of learning is strong in children throughout the early elementary years. Whenever possible, teachers should use purposeful movement to provide an active learning base for the concrete experiences that children need as they work with abstract concepts in music, math, language, science, and so on.

Who Initiates Movement Key Experiences?

Many times, children's natural play will lead into one or more key experiences in movement. But there will also be times when the teacher needs to initiate an activity involving key experiences. For example, most children walk, run, jump, hop, and gallop naturally (these are all part of the key experience *moving in locomotor ways*). However, children may not think of galloping sideward, which is the fundamental motor skill of *sliding*. The teacher could initiate this by demonstrating it for children, labeling it for them, and giving them time to explore the movement. Another way to initiate sliding would be to pose a problem-solving task: "How many different ways to gallop can you think of?" The slide might then be discovered by the children when someone tries to gallop to the side.

Whenever possible, teachers should seize and build upon the moments when children themselves are engaging in the key experiences. Children can be encouraged to lead one another, to share their ideas, and to follow one another's movement suggestions. Many times, the teacher's direction or guidance with a movement is most effective after children have first explored the movement among themselves. An example might be a situation in which children first experiment among themselves by demonstrating and copying one another's methods of throwing a ball (the key experience *moving with objects*). After a certain amount of this kind of exploration, the teacher could demonstrate an overhand throw, engaging children to talk about the various steps involved in the movement and to think about ways to alter and refine their throwing movements.

Many more examples of both teacher- and student-initiation of movement key experiences can be found in the 80 activities in Chapter 7. The main key experiences underlying each activity are listed at the beginning of the activity (marked with a key symbol) to help teachers in their planning. As mentioned in Chapter 1, working with the key experiences in these activities involves being familiar with the **movement core,** which is diagrammed and explained in Insert 3.1. The movement core provides an understanding of the different ways body movements can be organized.

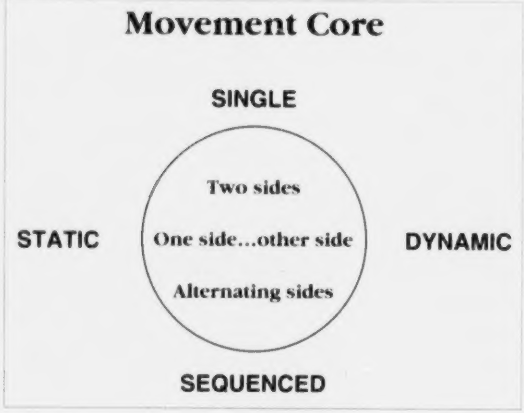
Students are exploring ways to move balls with their feet before sharing their ideas.

The Key Experience Outcomes

The key experiences in movement provide a framework for developing each child's potential in the physical, cognitive, social, and artistic areas of living. Associated with each key experience are certain *observable outcomes* that allow teachers to assess each child's emerging abilities. The outcomes are listed beside their key experiences in Insert 3.2.

3.1

The Movement Core



The movement core diagramed here is the motor-development base for all purposeful movement in the "Education Through Movement" program.

The center circle of the diagram refers to the way the body can be organized for purposeful movement:

Two sides refers to two corresponding parts of the body (e.g., both arms, legs, hands, elbows) moving in the same way at the same time. Examples would be patting the head with both hands, bending and straightening both arms, shaking both hands, jumping with two feet.

One side. . . other side refers to repeated movement of one of the two arms, legs, or hands without the other one moving. Twisting one arm several times or hopping on one foot several times are one-sided movements. The movement should then be repeated on the other side alone.

Alternating refers to two corresponding body parts taking turns in moving (one side of the body moving immediately after the other side). Walking, in which one leg at a time takes a forward step, is an example of alternating movement. Patting one hand on the knee and then patting the other hand on the other knee, and so on, is another example.

The words around the center circle of the diagram refer to the ways that the body executes purposeful movement.

Static refers to movement that pauses or is held still. For example, the leader might place both hands on his or her shoulders and then pause, with hands remaining on the shoulders, to make it easy for others to copy the movement. The pause can take place after a simple verbal direction such as "Put both hands on your knees." After the direction is responded to, an additional direction is given.

Dynamic refers to movement that continues without pausing, requiring students to track the movements. Patting the shoulders repeatedly is a dynamic movement; walking, running, kicking a ball, playing the violin, and typing are all dynamic. Dynamic movement can involve **two sides** (swinging both arms, jumping) or **one side** (one-handed ball bouncing, hopping) or **alternating sides** (snapping fingers on one hand, then the other, or jogging).

Single refers to one movement held or one movement repeated (patting knees, stomping one foot, or stepping). If a person can say one word with each motion ("KNEES, KNEES, KNEES, KNEES" or "STOMP, STOMP" or "STEP, STEP"), the movement is single.

Sequenced refers to two or more different movements joined together. Bending and straightening is a sequenced movement performed by two sides or one side, as is raising and lowering both arms. "HEEL, STEP; HEEL, STEP" is an alternating sequence. Two or more words accompany the movements.

3.2

Key Experiences in Movement

Key Experience	Observable Outcome
Engaging the Learner	
🔑 Acting upon movement directions	Aural, visual, and tactile processing; attending; concentrating (seeing and perceiving; hearing and comprehending; feeling and identifying)
🔑 Describing movement	Thinking ability and language use (talking about movement while moving, planning movement, recalling movement, linking one movement with one word in learner SAY & DO)
Enabling the Learner	
🔑 Moving in nonlocomotor ways	Comfort with and awareness of anchored movement in personal space (movement to action words; ownership of the 12 basic anchored movements; awareness of body, language, space, and time concepts)
🔑 Moving in locomotor ways	Comfort with and awareness of nonanchored movement in personal and general space (ownership of 5 basic weight transfers; ability to use single and sequenced movement; awareness of body, language, space, and time concepts)
🔑 Moving in integrated ways (Grade 2 and above)	Comfort with and awareness of purposefully combining nonlocomotor and locomotor movements (combining single and sequenced movements; demonstrating sport skills, aerobic sequences, and musical activities, etc.)
🔑 Moving with objects	Comfort with and awareness of combining objects with nonlocomotor, locomotor, and integrated movement (moving purposefully with hand-held objects; manipulating objects by throwing, kicking, striking, catching)
Extending the Learner	
🔑 Expressing creativity in movement	Extending movement by using one's own ideas (ability to make decisions, solve problems, represent, and be comfortable with creative expression)
🔑 Feeling and expressing steady beat	Basic timing (ability to independently feel, express, and keep the underlying steady beat of a rhyme, song, recorded or live musical selection in nonlocomotor and locomotor ways)
🔑 Moving in sequences to a common beat	Beat coordination (ability to sequence movements in steady beat alone and with a partner or group; ability to perform action songs and chants; ability to dance and perform aerobics alone and with others)

As learners participate in movement activities, teachers can watch for the observable outcomes. Is the learner attending to what is said? Does the learner comprehend what he or she hears, or sees, or feels? Can the learner talk about movement, plan movement, or recall movement? Does the learner move comfortably in personal space? In general space? Can the learner integrate leg and arm movements? Can the learner perform movements in sequence? What about creativity? Problem solving? Ability to feel, express, and keep steady beat?

Because of these observable outcomes of the movement key experiences, interactive movement experiences provide an important means for teachers to conduct ongoing assessment of learners' awareness and abilities and grasp of concepts. Chapters 4, 5, and 6 discuss the observable outcomes more thoroughly. Chapter 8 gives information for assessing the outcomes. Appendixes A and B provide specific methods for assessing the outcomes of beat competence and beat coordination, respectively.

The Basic Categories of Movement Key Experiences

The next three chapters present in detail the nine key experiences in movement. Each chapter covers one of the categories of the developmentally sequenced key experiences: "Engaging the Learner" is Chapter 4, "Enabling the Learner" is Chapter 5, and "Extending the Learner" is Chapter 6. A chart organizing the

These girls are recalling movements they explored in representing straight, curved, and zigzag pathways.

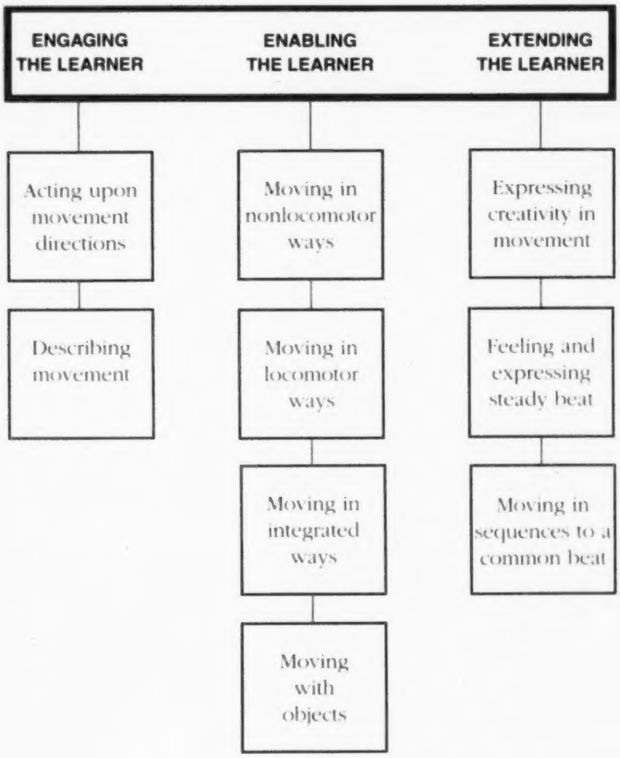
key experiences into these three categories appears in Insert 3.3. This same chart will appear from time to time throughout Chapters 4, 5, and 6.

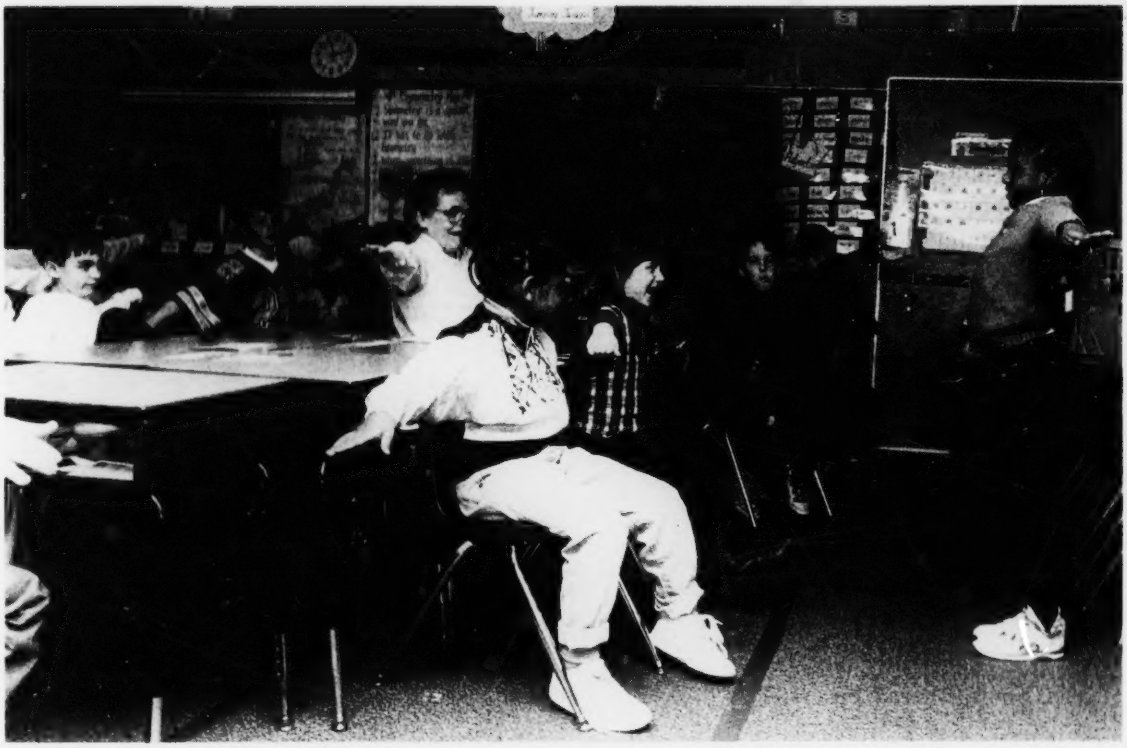
Notice that "Engaging the Learner" appears first on the chart. The teacher needs to know, first of all, how to engage and encourage learners so they are successful in *acting upon movement directions*. In addition, learners need to be assisted to talk about, plan, and recall movements they are engaged in—which constitutes *describing movement*. The next category on the chart, "Enabling the Learner," includes four key experiences, at least one of which is included in every movement experience. In this category, the teacher is concerned with learners developing awareness and comfort with the various ways of moving included in these four key experiences. The last category on the chart, "Extending the Learner," includes three key experiences that deal with learners' ability to be creative with movement and to be secure with timed movement.

As teachers and students work with purposeful movement together, they will discover that every movement experience involves each of the three

3.3

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat



Students act upon movement directions that a classmate is presenting visually, without speaking ("engaging the learner").

Students express steady beat by patting their shoulders with both hands ("extending the learner").

Students explore different ways to do locomotor movements at a low level ("enabling the learner")

categories in this chart in some way; teachers will often be able to observe their students engaged in more than one key experience at the same time. The teacher's careful observation while keeping the framework of the key experiences in mind leads to increased understanding about students' abilities. This enables the teacher to create opportunities for students to use purposeful movement to develop an active learning base and to experience curriculum concepts in many and varied ways.

In the key experience-related chapters that follow, you will learn more about the most important part of *building the foundation*. As you progress through the key experiences in movement, we hope you will discover the joy and the appropriateness of *educating through movement*.

Chapter 4

Engaging the Learner

> *Teaching is less about what the teacher does than about what the teacher gets the students to do.*
>
> David Perkins in *American Educator*

The two movement key experiences included under "Engaging the Learner" impact all areas of the curriculum. When children are engaged in learning, it means that they are paying attention to what is happening and thus able to thoughtfully respond to questions and requests for action as well as describe their own ideas and actions. With respect to *building the foundation* for movement, engagement means that children are *acting upon movement directions* and *describing movement*—and these are the two key experiences explained in this chapter (see Insert 4.1).

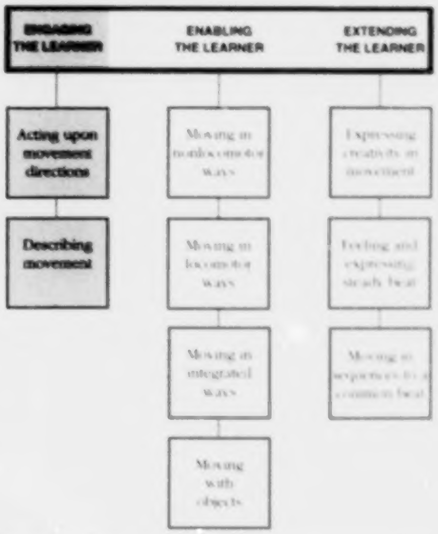
Teachers today often find that engaging children in learning is a challenging task. They report that children have unusually short attention spans or that they are unable to respond to what they see, hear, or feel. This may be due to the many competing sources of stimulation that children are constantly surrounded with. And some of these sources of stimulation—such as radio or TV—are fast-paced and do not encourage or require children's thoughtful or active response. Engaging children is also challenging if they are not being approached at their level of understanding, or if communication skills, decision-making, and initiative have not been fostered in children's early years.

The discussion of the *education through movement* Teaching Model in Chapter 2 provided suggestions for bringing about learner engagement through the three components of **separate, simplify,** and **facilitate.** Many of these suggestions will be expanded upon in this chapter as we describe how the key experiences of *acting upon movement directions* and *describing movement* build the foundation for each child to become a responsive and expressive learner who is thoroughly engaged in the happenings of the learning environment.

In our work with students of all ages, we have seen the exciting effects of **engaging the learner.** Let us examine the two key experiences that can make every student a participating, contributing member of the educational community.

4.1

Key Experiences in Movement

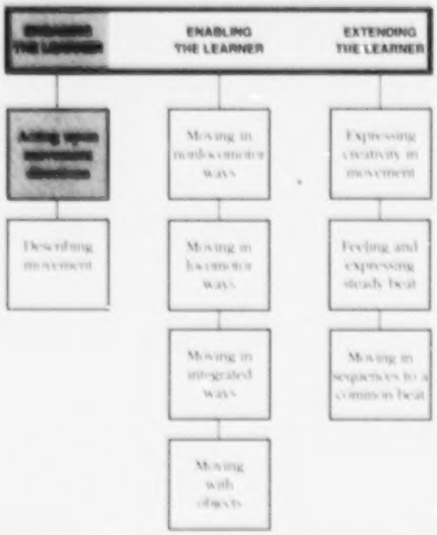

ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

Acting Upon Movement Directions (Insert 4.2)

Throughout the school day, children encounter movement information, or directions, being given to them by peers or teachers. To be successful with any movement experience, they need to be able to independently copy visual demonstrations, interpret verbal (spoken) directions, and feel and kinesthetically understand movement conveyed to them with hands-on guidance. Copying, interpreting, and feeling movement requires understanding in which eyes, ears, and touch are linked to conscious thought. This understanding gives children the ability to consciously *act upon* what they hear, see, or feel.

4.2

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

If, through movement response games, children have many varied experiences attending or responding to movement directions from both teacher and peers, they are likely to carry the attending and concentrating skills over into various areas of the curriculum. Some examples of when the key experience *acting upon movement directions* can have carryover are these:

- Carrying out the movements of an action song in kindergarten
- Following a teacher or student demonstrating a skill in physical education
- Copying the movements needed to play a musical instrument
- Matching pitches in singing by using the body scale (explained in *Foundations in Elementary Education: Music*, p. 35)
- Understanding information involving space, size, timing, or physical location or direction in the classroom
- Following two successive directions in any subject area ("First do _______, and then_______.")

How This Key Experience Fits Into the Daily Schedule

There is no need for learners to be "drilled" in responding to movement directions. Enjoyable response games involving students in *acting upon movement directions* can be spontaneously and naturally initiated by classroom teachers during any transition time in the K–3 schedule—at the beginning of the day, before a small-group time, before or after lunch time, and at the close of the day. For the very young children, these might be referred to as "copycat games"

In a movement response game, kindergarten children follow one of their classmates, who uses a stuffed gorilla to demonstrate each movement.

(see Insert 4.3). Specialists, such as the art or music teacher, might begin or end their activity period with a movement response game, to focus children's attention on the task to come.

Teachers can also encourage individual children to initiate movement response games. A child might be the leader for the whole class, or several individuals might each lead a small group, or children might pair off and take turns acting as leaders for their partners. (One way that partners can give movement directions to each other is through hands-on guidance, with one of the partners acting like a puppet.) By observing children as they act as leaders for one another, teachers can learn a lot about children's motor capabilities, their creative abilities, and their language development.

4.3

Children Following Directions—Naturally

Even at very young ages, children show tendencies to respond to movement that they see and to act upon movement directions spoken to them. For example, if we watch toddlers and preschoolers interacting, we often see one or more children trying to do what an older or younger child suggests or does.

As one example of this type of interaction, a grandmother described her three grandsons, ages 1½, 2, and 4, playing "copycat" together: "They delighted in watching and copying one another's movements. This ranged from jumping from a footstool to a couch, to dancing and twirling around to music they were hearing on the stereo. It didn't seem to matter which one of the three children came up with a new movement idea, the others joined in happily. Even a fourth grandson, 6 months old, giggled with delight as he watched the others!"

Young children sometimes also like to be "helpers" and to follow movement directions from adults—"Please bring Mommy your shoes"—or to hear adults attaching labels to movement that they perform—"You crawled through the tunnel!" If young children do not hear words attached to actions in this way, then by kindergarten age, their ability to act upon movement directions from peers and adults often lags behind their chronological age.

When initiating a movement response game, there are certain guidelines that are useful to follow in giving movement directions.

Guidelines for Giving Movement Directions

These guidelines are suggestions only. You may discover variations on them that work best for you. Remember that the desired outcome is to help children to increase their attention time and be successful in acting upon directions given

Pairs of children visually lead each other in movement response games.

Pairs of children follow a leader (off camera), with one child in each pair acting as a "puppet master."

verbally, by demonstration, or by hands-on guidance. Unless otherwise noted, each of these guidelines is appropriate for learners of all ages.

1. Use only one presentation method at a time. According to the **separate** strategy of the Teaching Model, either demonstrate, or use verbal directions, or use hands-on guidance. Talking and showing at one time is a difficult habit for many teachers to break, but talking *or* showing results in better attention from the listener or viewer. Students and teachers who have had opportunities to work with this method of presentation in leading others eventually find it easy to separate the two modes of presentation.

2. Begin with movement while seated. The seated position is easier for children to use when responding to movement directions. Also, greater numbers of lower-body movements are possible.

3. Use static movements before slow dynamic movements. Pause with each *single movement* for ease of copying. Slow dynamic movement (continuous movement) must be continually watched and tracked by the follower, so try this kind of movement only when children are comfortable with copying static movement and able to attend for a longer period of time. As you will see in later chapters, responding to dynamic movements is called for in some of the key experiences under "Enabling the Learner" and "Extending the Learner." See "The Stages of Movement for Responding (Aural, Visual, and Tactile/Kinesthetic Processing)" later in this chapter for more about using static versus dynamic movement.

4. In giving verbal directions, keep the number of words to a minimum. Pause after each direction is given, so children can process and respond to what has been said.

Children follow the teacher in performing simple age-appropriate movements using both hands

5. Keep the movements simple. Older students do not necessarily require more-difficult movements. The simplest movements to follow are those performed with the upper body or with the legs while seated. Keeping movement simple implies moving *both* hands, thumbs, elbows, etc., with each body part moving on its own side of the body first. Later you can try placing both hands on one shoulder or crossing both arms to place the hands on opposite shoulders. Kindergarten children may need to have objects or body parts placed against body parts for ease of copying. See "The Stages of Movement for Responding (Aural, Visual, and Tactile/Kinesthetic Processing)" later in this chapter for more help in giving simple directions. Also see "Guidelines Concerning Simple-to-Complex Tasks" in Chapter 2.

6. Make the movements age-appropriate. Older students respond better to off-the-body movements, whereas younger children respond to such movements as touching the head, ears, or chin. (For more on this subject, see Insert 2.1 on p. 26.)

7. Have fun with the group. Think of yourself as a partner in their learning. Remember that this should not be thought of as "drill." The purpose is to aid children in developing better responding ability.

8. Move slowly. The ability of the group should dictate how quickly you move from one verbal, demonstrated, or hands-on direction to another. Moving too quickly negates the reason for involving children in this key experience. Kindergarten children require a longer response time between movements.

9. Keep the time blocks short. If a movement response game goes on too long, it may be perceived as tedious "drill." The game should be fun and should provide a chance to move after being less active.

10. Until second grade or later, avoid requiring movements to be copied with "correctness" with regard to right/left directions. Integrating two concepts, copying the type of movement and using a specified *side of the body,* raises the level of difficulty for the child. If "side-of-the- body" correctness is required too early of children, they become frustrated, unwilling to try, and uncomfortable with movement. Wait until students can respond to directions easily and comfortably before introducing the right/left aspect. See Stages 6 and 7 of "The Stages of Movement for Responding (Aural, Visual, and Tactile/Kinesthetic Processing)" later in this chapter for examples that require side-of-the-body correctness.

11. Develop strategies that set the group up for success. When demonstrating one of the more advanced stages of movement, you might verbally add "Now watch which hand I use." That sentence might be just enough to bring a child who is "drifting away " back to watching. The same strategy might be used when giving verbal directions. Precede a verbal direction with "Listen carefully to know what movement to do with your hands." To younger children, you might say "Wiggle the hand on your knee; *[then, to capture their attention, wiggle the hand you have on your knee]* now move that hand to your waist."

12. Use props with the youngest children to aid their responding. When you are demonstrating, it helps these children to see a paper plate or beanbag or block, rather than just your hands. The same is true when you are giving verbal directions, that is, use the *name* of some prop in your verbal directions: "Move the beanbags to your knees." Even older students enjoy using props for variety.

13. Add music often. Use instrumental music that does not have vocal accompaniment. At first, hold each movement for the length of a musical phrase (often eight beats). *This is particularly necessary for kindergarten and first-grade children.* The instrumental selections on ***Rhythmically Moving 1–9*** are appropriate for all ages of learners; in addition, the selections on ***Changing Directions 1–5*** work well with Grade 3 and older students. *When very young children lead movement to instrumental music, do not expect them to be able to make their movements coincide with the musical phrases.* With repeated opportunities to work with music, their feeling for phrase length will improve.

14. Encourage children to assume leadership. Give your students opportunities to be leader for the entire class, for small groups, for their partners. *Working as partners is effective as early as kindergarten.* Besides being empowering, standing in front of others and leading them promotes students' ability, awareness, and knowledge and leads to their ownership of concepts. Also, teachers can learn a great deal about their students when the leadership role is turned over to them.

Sharpener
Trash
Floor

During a transition time in the daily schedule, a second-grade student leads the entire class in a movement response game

15. After giving directions for complex (higher stage) movements, return occasionally to giving directions for simpler (lower stage) movements. This gives children a "breather" and provides a safety net.

These 15 guidelines should help you in devising movement response games for learners of any age. Also important to be aware of in devising such games are the **stages of movement** that students are able to process aurally, visually, or tactile/kinesthetically as they are *acting upon movement directions.*

The Stages of Movement for Responding (Aural, Visual, and Tactile/Kinesthetic Processing)

These seven stages, which are listed in Insert 4.4, are numbered sequentially to indicate how they range from simple to complex in motor-development order. They represent the stages of movement learners encounter in building their motor foundation through the key experience *acting upon movement directions.*

Children need to experience the seven stages of movement by involving all three processing modalities—aural, visual, and tactile/kinesthetic. In this way, they achieve the observable outcomes of the key experience, which are improved attention and concentration—ability to *see and perceive,* to *hear and comprehend,* and to *feel and identify.* An added benefit is that experiencing the seven stages of movement helps younger children to become familiar with the names of body parts and with spatial concepts such as *up, down, over,* and *in front of.*

Although we use K–3 examples throughout our presentation of the seven stages, the same progression of stages for

4.4

Stages of Movement for Responding (Aural, Visual, Tactile/Kinesthetic Processing)

Stage 1: Single symmetrical movements
Stage 2: Single alternating movements
Stage 3: Single asymmetrical movements
Stage 4: Single alternating asymmetrical movements
Stage 5: Sequenced symmetrical movements
Stage 6: (A)Right/left identification (aural processing)
(B)Mirroring (visual processing)
Stage 7: Right/left reversal (visual processing)

responding applies to younger and older learners as well. However, older learners will not need to spend as much time with the beginning stages—they will find it easy to be successful with these stages. Nevertheless, we suggest always starting with two or three Stage 1 movements and returning to this stage periodically.

Now let us take a closer look at each stage. (Some definitions that will help in understanding the stages are given in Insert 4.5.)

Stage 1:

SINGLE SYMMETRICAL MOVEMENTS. At this stage, which is the easiest for any learner, **the student moves paired body parts (e.g., both hands) in a single symmetrical movement, which is then held static and identified. Both hands pause at the same location on the body (e.g., at the waist) or in the same location away from the body (e.g., out to the two sides). The student's hands can start their movement from the same position (e.g., from both being on the shoulders) or from *different* positions (e.g., from one hand being on a shoulder and the other hand being on the head).** (Insert 4.6 summarizes the Stage 1 movement

4.5

Terms Used in Stages of Movement for Responding

static movement A purposeful movement that pauses, or is held still, to allow children to respond.

dynamic movement A movement or sequence of movements that continue without pausing, requiring children to track the movement(s).

single movement Only *one* purposeful movement, performed and held static for children to respond. With dynamic movement, the one movement is performed over and over again.

sequenced movement Two different purposeful movements joined together, with the second one held static for children to repeat the two movements. With dynamic movement, after the second movement ends, the sequence repeats.

symmetrical movement Movement in which two corresponding body parts move at once, ending up in the same location (e.g., both hands move to the top of the head).

asymmetrical movement Movement in which two corresponding or two different body parts move, ending up in different locations (e.g., both hands move, one ending up on the knee and one ending up at the waist, or one elbow moves to the knee and one hand moves to the shoulder).

alternating movement Two corresponding body parts take turns moving (e.g., one foot moves, then the other foot moves).

mirroring Facing the leader and copying the leader's movement by "reflecting" it as a mirror would (e.g., moving your right arm when leader moves left arm).

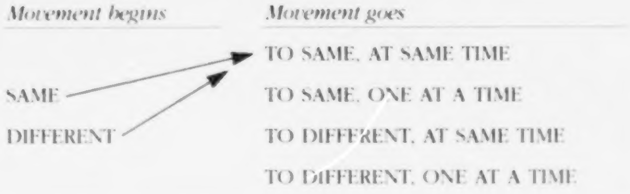
reversal Facing the leader and copying the leader's movement by using your right when the leader uses right, your left when the leader uses left.

tracking Visually following a continuous movement as the body part moves from one point to another.

In this student's Stage 1 response, both hands pause at the waist.

4.6

Stage 1: Single Symmetrical Movements



possibilities.) The single symmetrical movement, if performed with both legs, might be done while lying down or seated; there are only a few symmetrical leg movements that can be done while standing.

Using the three recommended presentation methods, the Stage 1 movement response activity might go like this:

- *Verbal directions (aural processing)*—Say, without demonstrating, "Put your hands on your knees" or "Put your hands on your head." Eventually, when it is clear to children that the hands are doing the moving, you might shorten the verbal directions to "on your knees" and "on your head." It is important that directions be brief, particularly for the youngest children, so their attention does not lapse before the directions are finished. When the children themselves lead the movements, you will be able to assess the language development of each leader by the verbal directions given.

- *Demonstration (visual processing)*—Demonstrate movement that stops with both hands on the same body location or in the same position away from the body. Place both hands on your shoulders, then *without speaking*, move both hands to your knees (the hands begin in the *same* place and move to the *same* place *at the same time*). The two hands could also begin in *different* places (e.g., head and shoulder) and move to the *same* place (knees) *at the same time*. After children have copied your first movement (which you have given from a seated position), to proceed, straighten both legs in front of the body, then bend both knees. Children can also lead in demonstrating movements in this way for their classmates.

- *Hands-on guidance (tactile/kinesthetic processing)*—*Without talking*, move the child's hands to his or her head, and then stop. Then move them to a position straight in front of the child's body. You might ask the child the name of the body location, or the name of the position, where the hands stopped. *Note:* Be sure to first ask children's permission before touching them.

Stage 2:

SINGLE ALTERNATING MOVEMENTS. At this stage, **the child moves one body part (hand, arm, finger, etc.) to a certain location (to the head, or to the chin, or to the same-side knee) and then moves the corresponding body part (the other hand) to the same (or corresponding) body location.** This stage

One hand moves from the waist to the head for a Stage 2 response. After this response, the other hand will move to the head

4.7

Stage 2: Single Alternating Movements

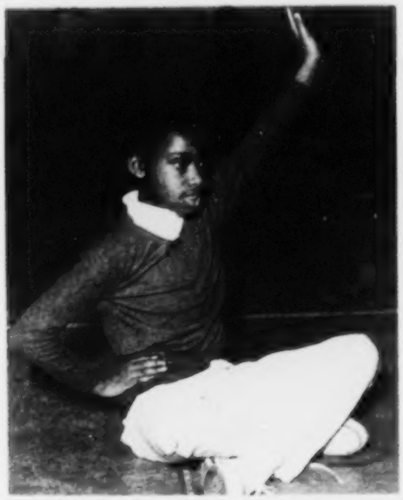
Movement begins	*Movement goes*
	TO SAME, AT SAME TIME
SAME ——→	TO SAME, ONE AT A TIME
DIFFERENT	TO DIFFERENT, AT SAME TIME
	TO DIFFERENT, ONE AT A TIME

is slightly more complex because only one side of the child's body moves at a time. In copying the leader, the child does not need to use the "correct" hand (i.e., the right if the leader used right, or the left if mirroring the leader's right-hand use). Most children will use their preferred side first. The hands begin from the *same* position (e.g., from both being at the sides, or both being on the shoulders, or both being on the head) and end up in *same* location, moving *one at a time.* (Insert 4.7 summarizes the Stage 2 movement possibilities.) This is how the Stage 2 directions might be presented in a movement response game:

- *Verbal directions (aural processing)*—Give verbal directions *without demonstrating:* "Put one hand on your shoulder." Wait for children to respond, then go on: "Put the other hand on your shoulder." Children responding to these two directions usually end up with one hand on each shoulder, but if a child ends up with both hands on the same shoulder, this is another possible interpretation. Of course, there are various ways to phrase the hand-shoulder directions.

- *Demonstration (visual processing)*—Start with both hands in the *same* location, on your head. Move one hand to your waist, and wait for children to copy. Then move your other hand to your waist and wait for children to copy. Again, children can choose whichever hand they prefer as their "starting hand." Success depends on the hands arriving at the new location, not on which hand arrives first.

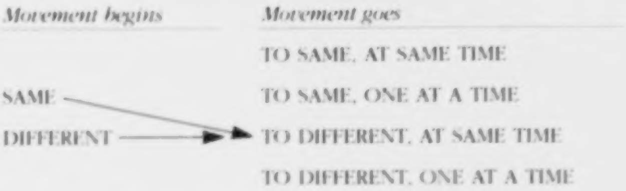
- *Hands-on guidance (tactile/kinesthetic processing)*—Move the child's hands *one at a time,* without speaking during the movement. For example, take one hand from the child's knee and place it at his or her waist. Then take the child's other hand from the knee and also place it at the waist. (When working with special populations, you might have to verbally identify the placement or describe the movement in addition to hands-on guidance.) Finally, put both of the child's hands back on the knees and see if the child can replicate the movement without your hands-on assistance. This type of hands-on guidance can also be done when children work as partners, with one child leading the other as a "puppet."



This student began with both hands on her head. For a Stage 3 response, she moved both hands simultaneously, with one going to the waist and the other going straight up

4.8

Stage 3: Single Asymmetrical Movements



Movement begins

SAME

DIFFERENT

Movement goes

TO SAME, AT SAME TIME

TO SAME, ONE AT A TIME

TO DIFFERENT, AT SAME TIME

TO DIFFERENT, ONE AT A TIME

Stage 3:

SINGLE ASYMMETRICAL MOVEMENTS.

At this stage, **the child begins with both hands (or elbows, or fingers, etc.) on his or her head (or on the knees, or on the ears, etc.) and moves both hands at the same time, with one going to the waist and one moving to a position straight up.** This stage is more complex because the child's corresponding body parts move to different locations. This is movement beginning in the *same* place and going to *different* places *at the same time*. (Insert 4.8 summarizes the Stage 3 movement possibilities.) Notice that Insert 4.8 shows Stage 3 movement also starting in *different* places and going to *different* places at the same time: The hands begin on the head and shoulders and end on the waist and knees. Since this is harder for children to respond to, we do not discuss presentations of this form of Stage 3. This is how the Stage 3 directions might be presented in a movement response game:

- *Verbal directions (aural processing)*—Because verbal directions cannot be given for *two different* locations at once, they must be given in two steps; say, *without demonstrating*, "Move one hand to your shoulder," wait for a response, and then say "Move the other hand down to your side." If children are not listening carefully, you will notice some of them moving the same hand twice, first to the shoulder, then to the side. Very young children may not understand the concept of "one hand" and then "the other hand."

- *Demonstration (visual processing)*—Beginning with both hands on your head, move both hands at once, but to two different positions, such as one moving to the waist and one moving to the shoulder.

- *Hands-on guidance (tactile/kinesthetic processing)*—Begin with both of the child's hands on his or her chin. Then, at one time, move one hand to the top of the head and the other hand to the shoulder. The child can then be asked to identify the two placements, or you can describe the placement of the hands following the hands-on guidance. Then put the child's hands back on the chin and see if the child can repeat the single asymmetrical movement.

Stage 4:

SINGLE ALTERNATING ASYMMETRICAL MOVEMENTS. At this stage, **the child moves one body part (e.g., a hand) on one side of the body from one location to another (e.g., from the head to the knee) and then moves the corresponding body part on the other side of the body to a different location (e.g., moves the other hand from the waist to the foot). The child's two hands could also have started from the same place (e.g., both from the waist) and moved, one at a time, to different locations (e.g., one to the knee and one to the foot).** (Insert 4.9 summarizes the Stage 4 movement possibilities.) This stage is more complex because when the corresponding body parts begin in *different* places, it requires the child to recognize which part is being designated to move first (e.g., "move the hand that is on the head") and which part is being designated to move second. At this stage, the part to be moved is not identified as right or left, however; neither is the child expected to mirror or reverse the side the leader uses. Children must be paying close attention, so they move the designated hand. This is how Stage 4 movement directions can be presented:

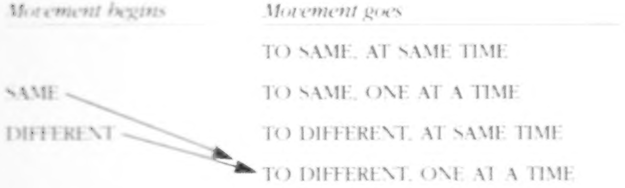
- *Verbal directions (aural processing)*—Start with children having one hand on their ear and the other on the top of their head, and say "Move the hand that is on your ear out to the side. Now move the hand that is on top of your head to your foot." From this Stage 4 movement, you can go on to another Stage 4 movement or go back to a simpler stage. If you choose Stages 2 or 3, the wording becomes "one hand" and "the other hand." If you choose Stage 1, the wording becomes "both hands."

- *Demonstration (visual processing)*—Begin with your arms in different locations—one arm up and the other arm down. Move the "down" hand to your head, then move the "up" hand to your waist. Children copy each *single* movement before the next is shown.

- *Hands-on guidance (tactile/kinesthetic processing)*—Begin with the child having one hand on the head and one on the shoulder. Move the child's hand from the head to the waist, and then ask which hand was moved ("the one from the

4.9

Stage 4: Single Alternating Asymmetrical Movements



The teacher has moved the child's one hand from her head to her knee. The child's other hand (at the waist) will be moved to her foot. This illustrates hands-on guidance for a Stage 4 response.

head or the one from the shoulder?"). Then move the hand from the shoulder so it is extended out in front of the body, and ask the child to identify which hand moved that time.

Young children who have played movement response games with their parents and caregivers will be quite secure with Stages 1–4 when they enter kindergarten. Since these games are not played as often today, K–3 learners will need opportunities to build these abilities. Work *among* the four stages, returning as needed to the beginning ones.

Stage 5:

SEQUENCED SYMMETRICAL MOVEMENTS. At this stage, **the student begins with both hands in the *same* location (e.g., on the knees), then moves them both to the waist and then moves them to a position overhead, where they stop.** Because this stage involves students waiting for the leader to complete *two* movements before they copy, it is harder for young children to grasp. Stage 5 is usually not successful with children before late kindergarten or early first grade; only then can they remember the first movement while watching the second, or resist the urge to copy the first movement before both movements are completed.

This first Stage 5 example was a movement made up of two Stage 1 (single symmetrical) movements. The Stage 5 sequence could also involve Stage 2, 3, or 4 movements. First-graders should work only with Stage 5 sequences that involve Stage 1 or Stage 2 movements. Using Stages 3 and 4 in sequences is a challenge even for older students in both the leader and follower roles. This is how Stage 5 movements might be presented to children:

- *Verbal directions (aural processing)*—Give two directions verbally before the children begin to respond: "Move your two legs apart, and then move them together," or "Move your hands to your head, and then move them to your shoulders." These examples used two Stage 1 movements for the sequence. The sequence might also consist of the two parts of Stage 2 (single alternating), where the children wait to hear *both parts* before responding: "Put one hand in front of you, and then put the other hand in front of you." (Sequences involving moving paired body parts at the same time are easier for children than sequences involving moving one body part and then the corresponding body part.) The important thing about presenting a sequence verbally is giving the *two directions before children respond.*

This boy began with both hands on his knees. He moved both hands to his waist and then overhead before this Stage 5 sequence of movements was copied by the rest of the students.

- *Demonstration (visual processing)*—Start with both hands out to the side. Move both hands to your shoulders and then to your waist, and leave them at the waist. The children then do the same sequence of two movements. To prevent children from starting to copy the first movement before the whole sequence is completed, we find it helpful to say "my turn" when starting to demonstrate and then "your turn" when finished demonstrating. The second movement of your sequence will be easy for children to remember, because you hold the movement when finished. To keep in mind the two movements of the sequence, they might whisper "SHOULDERS, WAIST" along with the movements as you are making them, and then they might whisper those words again as they copy your sequence. As with the sequences presented verbally, stages other then Stage 1 movements can make up the sequences you demonstrate. Remember, however, to demonstrate only *two* movements in a sequence before children copy. Sequencing stages higher than Stage 2 are best reserved for older students, who enjoy the challenge of copying and leading more-complex sequences.

- *Hands-on guidance (tactile/kinesthetic processing)*—Begin with the child's hands on his or her waist. Say "I am going to move your hands to two places; see if you can name the two places when I am finished." Then move the child's hands to the ears and then to a position overhead. (You could begin by telling the child first where his or her hands would be moving.) Finally, put both hands back where they started (the waist) and see if the child can replicate the sequence of movements (to the ears, then overhead) without your hands-on assistance.

Stages 1–4, which have just been described, are appropriate for K–3 children. Stage 5, as already explained, should wait until about grade 1, because of the need to remember and copy two movements in succession.

Stages 6 and 7 are appropriate beginning in grade 2, or when students are completely comfortable with following a leader's movement, because these last two stages involve using the "correct" (right or left) body part, as will be explained next. Stage 7, which many students find to be the most complex, can be introduced when students have reached success and comfort with Stage 6. Some students may not be ready for Stage 7 until grade 3. Stages 6 and 7 require students to integrate two concepts—identifying the correct side of the body to use (right or left) and making the correct placement of the body part.

The follower is mirroring the student leader in this example of a Stage 6 response requiring visual processing

Stage 6:

(A) RIGHT/LEFT IDENTIFICATION (AURAL PROCESSING) AND (B) MIRRORING (VISUAL PROCESSING). This stage has two parts. For **(A) the student responds to Stage 2 through Stage 4 movement directions given *verbally*, using the designations of "right" and "left" for parts of the body.** For **(B) the student responds to *demonstrated* movement directions by watching and mirroring the movements of the leader, who is facing the student.** This is how Stage 6 movements might be presented:

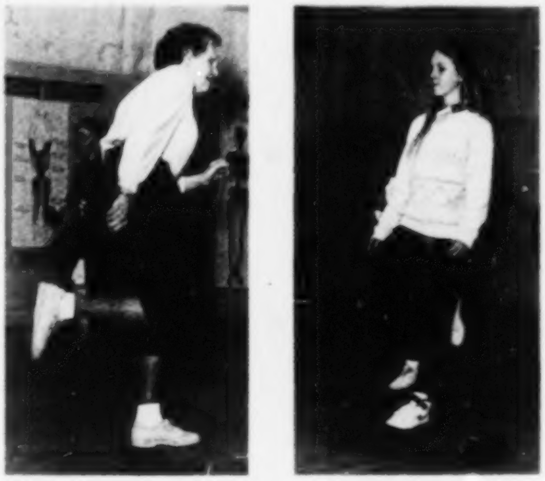
- *Verbal directions for Stage 6(A) (aural processing)*—If using Stage 2 movements, say "Raise your right hand," and give time for students to do so; then say "Raise your left hand" and allow time for students to do so; you do not demonstrate the movement. If using Stage 3 movements, say "Put your left hand on your head," and allow time for students to respond; then say " Put your right hand on your knee," and wait for students to do so. With Stage 4 movement directions, you might say "Move your right hand from your knee to your back," waiting for students to do so, and then say "Move your left hand from your head and put it out in front of you."

- *Demonstration for Stage 6(B) (visual processing)*—Face the students and ask them to copy what you do as if they were your mirror image. Put your *left* hand out to the side and wait for students to put their *right* hand out in a similar way, so you and the students are mirror images of each other. Hold each of your movements in static position for ease of copying. Eventually, when students are responding easily and comfortably, you may decide to keep the movement going (use dynamic movement), requiring students to use their tracking ability as they mirror your movements.

Obviously this stage involves children understanding the concept of *mirror image.* Most students respond with *mirroring* an image more easily than they do with *reversing* an image (i.e., using their right when the leader facing them uses the left). In this stage and in the next (Stage 7 deals with reversal), it is important that you label which concept you are asking the students to use—*mirroring* or *reversal.*

Stage 7:

RIGHT/LEFT REVERSAL (VISUAL PROCESSING). At this stage, **the student responds to *demonstrated* movement directions by watching and reversing the movements of the leader, who is facing the student.** This is another way of requiring the "correct side." It is called "reversing" the movements of the leader, because the student's right side moving when the leader's right side moves *looks* reversed, or opposite, when leader and follower are facing each other. Remember that this level of complexity may be best delayed until grade 3. Here is how Stage 7 movements might be presented:



In doing step aerobics, this student reverses, or uses the same foot that the leader is using. This is an example of a Stage 7 response.

- *Demonstration for Stage 7 (visual processing)*—Stand facing the students and raise your right hand; hold the movement static while students copy by raising their right hand (this will look like the opposite of what you are doing). After doing one movement such as this, it helps to return both hands to the same location, for example, to the shoulders. Then proceed with another one-sided movement for the students to copy by reversal. Later you can make the task more challenging by using other stages of movement for reversal. For example, using Stage 3 movement, you might begin with both hands out to the side and then, at the same time, turn your right thumb up and your left thumb down; students facing you and copying by reversal would turn their right thumb up and left thumb down, looking like the opposite of your Stage 3 movement.

Adding Dynamic Movement to the Stages

In introducing Stages 1 through 7, we have emphasized using static movement or at least beginning with static movement. When students are responding to the stages easily, you may challenge them to copy various stages of slow

As the teacher demonstrates dynamic movements with both sides of the body, students track her movements.

dynamic movements as you demonstrate them. This requires children to continuously pay attention to track the dynamic movements.

Stage 1 dynamic movements (both sides of the body doing the same thing at the same time) are the easiest to track. For example, you might begin with both hands in front of your body and then move them slowly to a straight-overhead position and then move them slowly down to your sides. (Children copy each of your single movements as you do it.) Later you might try moving one side of the body at a time and then two sides in different ways (Stages 2, 3, and 4).

After students can mirror and reverse your movements easily, try using slow dynamic movements for Stages 6 and 7. Being able to reverse dynamic movements is necessary for students who, for example, are dancing with others in a circle, facing and watching the leader of the dance.

4.10

Summary of Acting Upon Movement Directions

Observable outcomes:
Aural, visual, and tactile processing, attending, concentrating

Concepts included:
Stages of Movement for Responding
Separate in the Teaching Model
Single movements
Sequenced movements
Static movements
Tracking

Summary of Acting Upon Movement Directions (Insert 4.10)

Engaging students in movement response games in the ways described here, keeping in mind the seven stages of movement summarized on the next page in Insert 4.11, has been shown to bring dramatic results with learners of all ages. Early elementary teachers using the concepts outlined in this chapter have reported improved attention and concentration in their students, including those special-needs students mainstreamed into their classes.

You will know that the observable outcomes of the key experience *acting upon movement directions* have been reached when your students can respond accurately to movement when they hear it described, see it demonstrated, and feel it conveyed through hands-on guidance. Your use of the **separate** strategy of the Teaching Model will help children to develop these three modalities of learning to their fullest potential. They will be able to connect what they see, hear, and feel to thought and then to action, and their improved ability to concentrate and attend in movement activities will carry over into other areas of the curriculum.

Brief, enjoyable movement response games initiated by both teachers and children are one way that children can experience the kind of learner engagement that we describe as *acting upon movement directions*. As you read on, you will see how children have opportunities to see, hear, feel—and then act upon—movement directions in connection with many of the other movement key experiences. The remainder of this chapter deals with the other facet of learner engagement—the key experience of describing movement.

4.11

Summary of Stages of Movement for Responding (Visual, Aural, and Tactile/Kinesthetic Processing)

Stage 1: Single symmetrical movements

SAME or DIFFERENT → SAME, AT THE SAME TIME

Corresponding body parts do single movement ending in the same place and pause for learner response.

Stage 2: Single alternating movements

SAME → SAME, ONE SIDE AT A TIME

One body part moves, learners respond; corresponding body part does identical movement, learners respond (no right/left or mirroring or reversal).

Stage 3: Single asymmetrical movements

SAME or DIFFERENT → DIFFERENT, AT THE SAME TIME

Corresponding body parts do different movements at the same time and pause for learner response.

Stage 4: Single alternating asymmetrical movements

SAME or DIFFERENT → DIFFERENT, ONE SIDE AT A TIME

One body part moves, learners respond; corresponding body part moves to different location, learners respond. When body parts begin from different positions, there is "correctness" by placement of body parts, not by right/left or mirroring or reversal.

Stage 5: Sequenced symmetrical movements (first grade)

SAME → SAME, AT THE SAME TIME (two movements)

Two Stage 1 movements are sequenced before learners respond.

Stage 6: (A) Right/left identification (aural processing) (second grade)

Learners respond to leader's verbal directions for right or left.

(B) Mirroring (visual processing) (second grade)

Learners use mirror image of side leader is using as they face leader (leader uses right, they use left).

Stage 7: Right/left reversal (visual processing) (third grade)

Learners use what looks like reverse of side leader is using as they face leader (leader uses left, they use left).

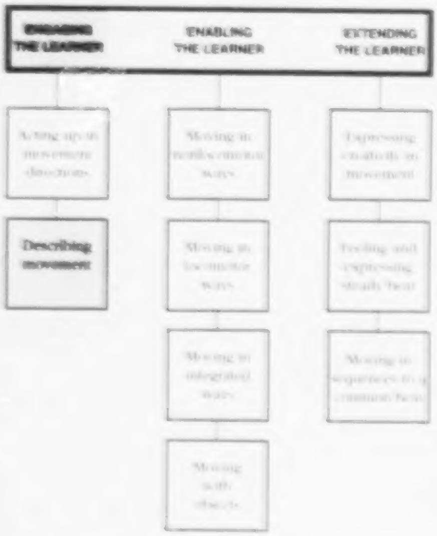
Note: Once learners follow **static movements** easily, use **dynamic movements** with seven stages.

O┬ Describing Movement (Insert 4.12)

Language is the essential bridge to reaching ownership of movement concepts. If students can verbalize their active learning experiences in movement, this use of language promotes full engagement with learning by bringing movement concepts to a new level of awareness—establishing a cognitive-motor link. This understanding enables children to integrate the concepts and then act upon them, applying them to new situations. As its wording implies, the key experience *describing movement* involves children applying language to movement they perform, plan to perform, or have performed. To do this, of course, they need experience in listening to language about movement.

4.12

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

In discussing how learners become engaged in learning by *describing movement*, we will explain the following five aspects of this key experience:

- **Listening to language about movement**—Teachers comment on movements performed by children, so children not only receive nonjudgmental recognition but also hear descriptive language for their movements.
- **Talking about movement while doing it**—Teachers engage children by posing movement problems that lead them to talk about their movements as they perform them.
- **Planning movement before doing it**—Teachers engage children by asking them to think about and describe how they plan to move.
- **Recalling movement after completion**—Teachers engage learners by asking them to think about and describe movement already completed.
- **Learner SAY & DO**—Teachers encourage children to link each single movement with a single descriptive word, so thought directs the movement; action, thought, and language are united.

In discussing these five aspects of *describing movement*, we will be emphasizing the **facilitate** component of the Teaching Model, which was intro-

The teacher is encouraging these students to plan, try out, and discuss the "human machine" they are constructing.

duced in Chapter 2. In particular, we will describe the active learning strategies teachers use when they act as facilitators of students' learning. As they facilitate students' process of making connections between language and movement, teachers need to keep in mind the observable outcomes of *describing movement,* which are thinking ability and language use.

The Importance of Listening to Language About Movement

Mrs. Bud initiated a task for her kindergarten children in physical education. The children were encouraged to find different ways to travel about the gym in zigzag pathways. Watching Susan, Mrs. Bud commented, "Susan, you are walking a zigzag pathway with big, wide steps. I'm going to try that also. Am I doing it the way you are doing it?"

When she saw Sam hopping first on one foot and then on the other foot when he changed direction, Mrs. Bud said, "Sam, you are hopping on one foot, and when you change direction, you switch to the other foot. Is it easier to hop on one foot than on the other? I'll try it with you, and you tell me when to switch to the other foot."

Mrs. Bud observed that the children moved well but were having difficulty describing their movement with words. Therefore, she provided opportunities for them to hear language describing their movement.

Some connections between movement and language will have been established well before children reach the K–3 years. As infants and toddlers roll over, squirm around, get on their hands and knees to crawl, and finally walk, they hear adults using **relevant** language to describe these early explorations of the world (see Insert 4.13). Listening to the adult language, children begin to develop kinesthetic awareness—a sense of how body parts move together or separately, of how body parts are related to one another and to the surrounding environment.

As children reach preschool age, adults continue to comment on their various movements: "Tim, I see you are jumping over puddles." "Kayla, you skipped all the way across the yard!" Adults also begin to question children about movement in ways

4.13

How Adults Supply Movement Language in the Early Years

As Steven, 20 months old, jumps about the playroom, his mother labels the action for him. She says, "JUMP, JUMP, JUMP, JUMP," in time to his repeated jumps. Eventually, he becomes aware of the word his mother uses to describe his action, and then he begins to respond to the word "JUMP" when someone asks him to jump. Soon, he will be adding the word "JUMP" to his speaking vocabulary. Little by little, his mother will extend the movement language she uses with him, expressing more complete thoughts: "Your jumping legs are going up and down." Steven will, in turn, begin to express more complex language describing how his body moves.

that get them thinking and solving problems: "Brian, I see you are turning your arm around and around. What else can you tell me about what you are doing?"

By the time they start kindergarten, most children will have picked up on the movement language they have listened to earlier and will be describing or be ready to describe their own movement activities. However, if children have not had much language interaction with adults in their early years, they may enter school with their movement-language development lagging behind their chronological age. This is all the more reason for kindergarten and first-grade teachers to comment on and pose questions about children's movement activities, so children are frequently **listening to language about movement.** (See Insert 4.14.)

4.14

Commenting on Movement—Not Just for Young Children

Learners of all ages—not just K–5 children—can benefit from comments made about their movement. Some of the language of movement, or the language of dance (which will be explained further in Chapter 6), may be new for older children, teenagers, and even adults. As with any technique or approach, however, commenting should not be over-used. Teachers should be careful to comment in ways that are age-appropriate and do not sound condescending. It makes people feel good to be recognized for their efforts in a nonjudgmental way. For adult learners, a quiet, personal comment is often more appreciated than a general statement made to the whole group.

An adult comment, well placed, can recognize a child's actions, provide the child with descriptive language, and provide a quality interaction between the adult and child. Commenting on individual children's movement ideas provides other children with additional ideas to explore: "Yvonne, you found a way to throw the ball sideward." Here, one child is recognized for throwing the ball in a way that the other children have not yet discovered, and this gives the others a new idea to try. Notice that the teacher made a nonjudgmental comment, as opposed to saying "I like the way Yvonne threw the ball." This latter

As students explore different musical instruments, the teacher observes and comments on the various ways they are playing their instruments.

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kind of comment involves personal judgment and may leave some other child thinking "I guess Mrs. Rodriguez does not like the way I throw the ball." Using the phrase "I like. . ." conveys to children that they should do things to try to please the teacher and does not foster intrinsic motivation. Learners should strive for greater skill because increased ability satisfies their personal goals.

Listening to their peers' language about movement is also helpful to children. Small groups of children or partners can work together to strengthen everyone's movement-language abilities. As one child performs a movement, the partner or the others in the group can describe what they see. Younger children may need to do the movement along with the leader, because they may not have the ability to watch a movement and comment without joining in.

Talking About Movement While Doing It

> *After reading a story about monsters, Mrs. Patterson's first grade children pretended to move like the monsters in the story. As she watched Tony moving like a monster, Mrs. Patterson moved closer to him and asked him to talk about the way he was moving his body. He described the movement to her, and she then joined him in representing his monster. After this, she encouraged the children to find partners and to each work with their partner, talking about and copying each other's "monster movement."*

As children listen to more and more movement description from others, they will begin providing their own descriptions of how they are moving. They may explain their movement to a friend in kindergarten or to a partner in first grade, or they may describe their movement to a group of their fellow students in second or third grade.

Often, children's description of movement will be in response to a movement problem the teacher has posed: "How is your body moving as you pretend to be a monster?" "How many ways can you move across the room keeping your body low?" "What is your body doing as you get ready to throw the ball?" By divergent questions such as this, the teacher has engaged children to think about purposeful movement and raised it to a level of language awareness. Children's movement descriptions will begin to occur naturally as they try out various ideas and volunteer to share their ideas with the class.

Teachers can facilitate children's descriptions of movement and their understanding of movement concepts by asking such questions as "How can you describe the size of your movements?" or "What kind of pathway are you following?" Teachers can learn a great deal about each child's language development as they engage individual children to describe their actions. Does a child use only single words? Only phrases? Or whole sentences? Inability to describe one's own concrete actions may signal difficulties with other areas of the curriculum. Since the child's body is the primary learning center, developing language that relates to the body and what it is doing is a good place to start in developing expressive skills.

You may occasionally notice a child who cannot talk while moving because so much of his or her energy and concentration is required by the

In a movement exploration activity, these young children are talking among themselves about the many ways they have chosen to move.

movement task. This type of child can nevertheless benefit from listening to the teacher's comments or from questions asked before or after he or she has moved. Allow such a child much time for trial and error before movement becomes automatic enough to permit talking at the same time.

Planning Movement Before Doing It

> *In music class, third-graders explored how they wanted to move as they used high, middle, and low vocal pitches. Mr. Hughes, their teacher, suggested that they choose partners and each plan with their partner some movements to indicate various musical pitches. Following their planning, each pair of students tried out their movements, singing the musical pitch they had selected for each movement. Several pairs of students then shared their ideas with the whole class.*

When children are asked to describe their plans for movement, it implies that they will give some thought to their actions before performing them. Thus movement takes on new meaning. The teacher is the facilitator, giving the child choice in how to perform the movement, while the child is the "owner" of the movement, accountable for making a thoughtful, purposeful plan and then carrying it out.

Two students are planning how they will sequence movements together

Planning actions before carrying them out is an integral part of the High/Scope Curriculum. This concept of planning applies readily to movement activities. Children can be asked to plan how they will go down the slide, or how they will travel to the table at snack time, or how they will travel across the gymnasium, or how they will represent the motions of a machine. Many children as young as kindergarten age should be able to describe at least a two-step plan. A description may be very primitive or very elaborate; the important thing is that it reflects a thoughtful decision—the key to purposeful movement.

Elementary school children, as early as kindergarten, can work as partners in devising and sharing movement plans. For example, a pair of children might plan and share with each other how they will move around the room; partners listen to each other's plans, and then all travel around the room as planned. A more advanced form of this movement activity is this: One person in each pair makes a movement plan and shares it with his or her partner. Then the planner leads in moving around the room, with the partner following and copying the movement. The follower then decides if the description given was accurate or if it needs to be elaborated on in some way. (See Activity 62 in Chapter 7.)

Planning movement is an important part of many of the other key experiences. For example, in leading movement response games for *acting upon movement directions*, one needs to have a plan in mind before executing each step of the game. Future chapters will also mention the role that planning plays in the four key experiences **enabling the learner** and the three key experiences **extending the learner.**

Recalling Movement After Completion

The students in Mrs. Isaac's second-grade class were exploring combinations of locomotor movements. Mrs. Isaac encouraged each student to create a sequence that could be performed with eight beats. After everyone had time to complete this task, she said, "Please choose a partner and recall for that partner the sequence you created. Try to tell them the order of the locomotor movements instead of showing them the order of movements. See if they can perform the sequence you recall for them." To be successful with this recall, students had to think about the task.

When students recall movement, it involves thinking back to a task just completed, remembering how it was performed, and putting that into words. This implies, of course, that the student was kinesthetically aware *during* the movement. Recall is easiest if students are made aware before starting a movement that they will be asked to recall, so they can focus attention on their actions.

Recall—a time for reviewing what was done during work time—is part of the daily routine in the High/Scope K–3 classroom. This means that students are attuned to thinking back over what they have done, and therefore recalling movement fits nicely with this way of thinking.

Actually, the advantages of recall work two ways: Paying attention while performing an action helps recall; and trying to recall past actions enhances awareness of what one has done. The ability to recall a motor task, without repeating it, is a fairly advanced task (see Insert 4.15). Even some adults have to resort to repetition of a motor task to recall it (consider, for example, those adults who have to use their arms and change their body position to give driving directions). Nevertheless, recalling simple motor tasks is a valuable process for children and develops a useful skill. Children will often need to repeat a task in order to recall how they did it, and this is understandable. As an extra challenge, try to choose some motor tasks for recall that are not easy for older learners to repeat as they try to describe them.

One of the times that skill with movement recall is especially valuable is in trying to correct or perfect some technique, such as fingering a musical

This group of students is engaged in recalling how they worked with the concept of pathways during movement time in the multipurpose room.

instrument or serving a tennis ball. How many times does a teacher say to a student "Next time, try to________", only to realize that the student doesn't know what he or she did the *last* time. Being able to reconstruct the *in*correct technique can often help in perfecting the correct technique. Also, being able to verbally recall a sequence of movements can sometimes help to set the sequence firmly in mind, thus aiding future smooth performance of the sequence (see Insert 4.16).

4.15

Recall Turns Players Into Thinkers

One student in a physical education "methods" class was a university quarterback working on a teaching credential. As a part-time job, he coached the quarterbacks and ends at a local high school. We asked him to try using movement recall with his young athletes—to see how kinesthetically aware they were of their movements in football plays. Although reluctant at first, he agreed to try this way of "engaging his learners." He returned to class eager to share his experience: Evidently his players had not been thinking. When asked to verbalize what he did on a certain play, a player would typically say, "I don't know, Coach—you tell me." They seemed unable to bring to a level of language awareness any moves that they had performed. He continued to use the recall concept throughout the rest of the season and discovered that his players developed into thinking athletes on the field. They went on to win the state championship!

Learner SAY & DO

In a third-grade physical education class, a student practiced volleying a ball against the gymnasium wall. As the ball bounced on the floor, the student said, "BOUNCE"; upon hitting the ball underhand with both hands simultaneously, the student said, "HIT." The student tried to keep the ball going as long as possible using this "BOUNCE, HIT" pattern. In an earlier volleying practice, when the student did not use SAY & DO in this way, he had far more difficulty keeping the ball going.

One very specific way that action, thought, and language are combined is when children link a single movement to a single word to establish the timing of a movement or a movement sequence; words are thus used to "lead" movement. Called "learner SAY & DO," this way of *describing movement* is one of the steps in the Four-Step Language Process outlined in Insert 4.17.

4.16

Using Movement Recall in Folk Dance

Recalling the sequence of steps in a folk dance is important to being able to perform the dance smoothly. Verbalization of a sequence can help students remember it—especially if they themselves put the sequence into words. If the dance instructor says, "Now, remember, first we go in and then we go out, and then cross," it is not nearly as effective as asking the *students* to recall what the sequence is.

All movement involves timing. If children have words to speak to create the timing for a particular movement or sequence of movements, they then have a strategy for reaching a level of proficiency with the movement. Practicing a movement or sequence of movements many times with learner SAY & DO allows it to go on "muscle memory"—to become automatic. How this happens will become clear as we examine each step in the Four-Step Language Process.

Step 1: SAY. Students use simple descriptive language for the movement to be performed. The language might name body parts (e.g., HEAD, KNEE), nonlocomotor or locomotor actions (e.g., TWIST, MARCH), or dance steps (e.g., CROSS, SIDE). Children might chant "KNEES, KNEES, KNEES, KNEES" or "PAT, PAT, PAT, PAT" or "MARCH, MARCH, MARCH, MARCH."

4.17

The Four-Step Language Process

Step 1: SAY
Step 2: SAY & DO
Step 3: WHISPER & DO
Step 4: THINK & DO

The chant creates the beat to be followed, but no music plays during this first step.

Step 1 works best with students who are age 7 and older. It also is most effective when children have first explored the movement. The chant then synchronizes everyone, and students each add the movement to the chant as they are ready. Some young children cannot chant the word alone without doing the movement; others cannot simultaneously chant and do the movement, because doing the movement takes too much concentration. When the movement is added to the chant, this is Step 2 of the process.

Step 2: SAY & DO. Children match movement with the repeated chant described in Step 1. Each child adds the movement to the chant when he or she is ready, which accommodates varying levels of ability. For example, the chant might be "CHIN, CHIN, CHIN, CHIN" as all children pat their chins in time to the chant. Another example would be children chanting "KNEES, SHOULDERS, KNEES, SHOULDERS" as everyone pats knees, then shoulders, and so on.

There are several ways SAY & DO can be started. A student might suggest the movement sequence, then all students practice it to their own timing.

Here, two students lead each other with learner SAY & DO, using beanbags for their movement focus.

then the student leader begins a chant to establish timing, and everyone eventually joins in. Another strategy would be for the leader to perform the movement sequence and the class to chant along with his or her movement, then eventually join in the movement.

The movements students perform in SAY & DO may look alike or they may vary. For example, if the chant is "BEND, STRAIGHTEN," different students may be bending and straightening in various ways—some bending and straightening a leg, others bending and straightening an arm, others bending and straightening their whole body. Another chant that may be accompanied by many variations of movement is "SWING, SWING"—which could mean swinging the arms, the legs, the body. The important thing is that the chant sets the timing for the accompanying movement.

Step 3: WHISPER & DO. This step is like SAY & DO except that the words are whispered instead of said aloud. Step 3 is useful when all are working to their individual timing, or when music is playing and therefore speaking aloud would intrude on the music and cause students to lose track of the beat. Moving from chanting aloud to whispering the chant allows students to hold their concentration and acts as a bridge to Step 4.

Step 4: THINK & DO. In this step, students *think* the words, instead of saying or whispering them, while the movement continues. (Children younger than about age 7 may have difficulty thinking the words without saying them.) Once the THINK & DO (sometimes called the "DO" step) is reached, students have the movement in muscle memory. With the movement automatic, it is possible to carry on a conversation or sing a song while continuing the movement sequence.

Connected with the Four-Step Language Process, and especially with the SAY & DO step, are standard vocabularies for movement and dance. Both vocabularies (movement and dance) contain consistent labels for certain movements, and this facilitates interpretation. For example, in dance, the term "cross" always means crossing in front; the term "side" always means moving sideward while facing center. Likewise, in movement, words like "jump" and "march" have consistent meanings. (See the nonlocomotor and locomotor movements listed in Chapter 5 under "Enabling the Learning," on pp. 95 and 107.)

It is important to realize that the ability to SAY & DO or WHISPER & DO does not develop automatically. There are many children, as well as adults, who find it challenging to think, speak, and move at the same time. With patience and practice, these important abilities do develop, however. They become valuable strategies to apply in a variety of movement tasks. We have seen many uncoordinated students become coordinated movers by using the Four-Step Language Process. In Chapter 6, we will explain how K–3 students can use the Four-Step Language Process as they engage in the key experience *moving in sequences to a common beat.* Partners coordinating a hand-jive can use learner SAY & DO effectively. The process is also useful when students are learning organized dance, beginning in

4.18

Learning to Dance With the Four-Step Language Process

Students learning organized dance use a set of consistent Language-to-Dance terms to describe the various movements involved in dance. Once these terms are understood, the leader speaks the dance pattern, and the students echo it. Then, using the SAY step, they repeat the verbal pattern several times, so it is memorized. As they repeat the pattern, the leader performs the movement to accompany the verbal pattern. Then the leader might SAY while the students perform the accompanying movement. (So far, students have not had to concentrate on both the verbal and the movement at the same time.) The final step is to put the SAY & DO together. Upper-elementary, middle school, and high school students, as well as adults, are successful when this strategy is used.

Grade 2 (see Insert 4.18). It can likewise be useful in developing a tennis serve. A parachuting instructor was observed using learner SAY & DO in teaching parachuting maneuvers! In each case, learner SAY & DO helps learners to conceptualize the task and perform the steps in the correct order.

Summary of Describing Movement (Insert 4.19)

The key experience *describing movement* provides children with various ways to link action, thought, and language. First, children **listen to movement language** in order to use it themselves; adults' and peers' comments on children's movement supply them with language they can use. Children are also engaged to **describe movement while they are performing it**—as they solve movement problems or respond to movement heard, seen, or felt. Using language while moving facilitates awareness and helps to make movement purposeful. And in keeping with the High/Scope Curriculum's plan-do-review element, teachers also facilitate children's use of thought and language in **planning movement** and **recalling movement.** A last and particularly useful way that children's action, thought, and language are linked is in the Four-Step Language Process. The **learner SAY & DO** step of this process is helpful for perfecting rhythmic or timed movement patterns. These five aspects of engaging learners through *describing movement* will take on more signficance in Chapter 5, as we explain the process of *enabling the learner* through the next four key experiences in movement.

4.19

Summary of Describing Movement

Observable outcomes:
Thinking ability and language use

Concepts included:
Facilitate in the Teaching Model
Divergent questions
Listening to language about movement
Talking about movement while doing it
Planning movement before doing it
Recalling movement after completion
Learner SAY & DO

Chapter 5

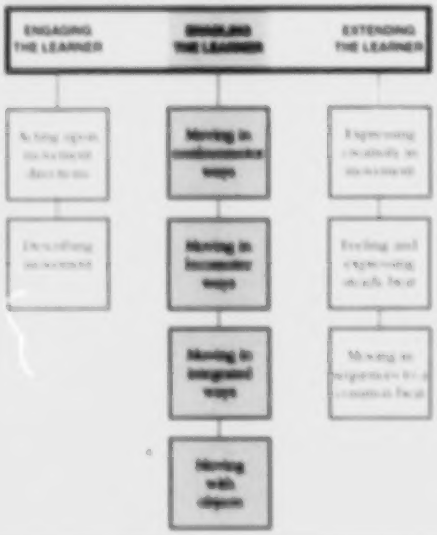
Enabling the Learner

I saw tomorrow look at me through little children's eyes, and
thought how carefully I'd teach if only I were wise.
Author unknown

This chapter describes how teachers can enable children for lifelong learning and enjoyment by initiating and supporting their development in the four broad areas of movement. These areas of movement correspond to the four key experiences included under "Enabling the Learner": *moving in nonlocomotor ways, moving in locomotor ways, moving in integrated ways,* and *moving with objects* (see Insert 5.1). The observable outcomes of these key experiences include children's increased comfort with each of the four areas of movement and improved awareness of the body, space, language, and time concepts related to each area of movement.

5.1

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

The four broad areas of movement, which we define here, are explained in further detail in the major sections of this chapter (each marked with a key symbol).

- **Nonlocomotor movement**—This is movement that always has one part of the body *anchored* to the floor. It is performed in one's own space (personal space) without completely transferring body weight. For example, moving some part of the upper body or of the lower body when seated or lying down is nonlocomotor. Moving only one side of the lower body while standing, or rocking from side to side while both feet remain on the floor are other examples. As long as some part of the body remains fixed, or *anchored,* throughout the movement (e.g., as in twisting, swinging, rocking, bending), the movement is nonlocomotor.

- **Locomotor movement**—This is movement that does not have a body part anchored to the floor. It usually involves moving around the wider, available area (general space), with the body *not* anchored and with complete transfers of weight. Examples (involving just the lower body) are walking, jumping, galloping, skipping. (Lower-body locomotor movement, which involves complete transfers of weight and therefore *foot patterns,* will be stressed in this book.) Examples (involving upper and/or lower body) are rolling, crawling, climbing, walking on the hands. Although locomotor movement *usually* involves traveling or moving around general space, it *is* possible to perform such a locomotor movement as stepping or jumping while remaining in one's personal space. (Occasionally, you may want children to do locomotor movements in personal space to avoid their bumping into one another.)

- **Integrated movement**—This is movement involving two *different* areas of the body moving purposefully at the same time. This might mean, for example, arm movements (clapping) performed at the same time as leg movements (stomping), either while seated or while moving about. We focus primarily on the kind of integrated movement that combines nonlocomotor (anchored, with no weight transfer) with locomotor (unanchored, with weight transfer) movement (an example would be marching about the room while moving the arms in a purposeful way).

- **Movement with objects**—This type of movement occurs when any of the three types of movement just described (nonlocomotor, locomotor, or integrated) is performed in a purposeful way with one or more objects. The object might be a ball, bat, racquet, rhythm instrument, jump-rope, beanbag, paper plate, paint brush, scissors, or pencil. The object might also be some kind of traditional outdoor play equipment or gymnastic equipment, but we will leave discussions about using such specialized kinds of objects and equipment to other books.

In exploring the key experiences involving these four areas of movement, we will frequently use the movement terms defined in Chapters 3 and 4, as well as some new terms and concepts explained here. The previously defined terms (from Insert 3.1 and Insert 4.5) are listed here:

static		dynamic
single		sequenced
two sides	one side . . .other side	alternating
symmetrical		asymmetrical

Two additional movement terms that will be useful in the discussion of integrated movement and moving with objects are defined in Insert 5.2.

Important concepts underlying our discussion of the four broad areas of movement are the **types of space that one can move through,** the **basic directions that movement can take,** the **timing that movement can have,** and the **type of initiation or response that can lead to movement.**

5.2

Terms Related to the Four Areas of Movement

ipsilateral movement Two different (not corresponding) body parts on the *same* side of the upper and lower body moving at the same time, for example, the right arm and right leg bending and straightening.

contralateral (crosslateral) movement Two different (not corresponding) body parts on *opposite* sides of the upper and lower body moving at the same time, for example, the left leg kicking as the right arm is swinging to the front.

These students remain in personal space while they balance on one leg and swing the other leg.

Using their hoops as "steering wheels," these children travel around the room (general space).

Clear understandings about these concepts will be useful in exploring the four key experiences that enable learners:

- **The types of space for movement.** Because movement occurs through space, realizing the relationship between one's body and the space it moves through is important. When moving, a person may use *personal space* or *general space.*

Personal space is the space immediately surrounding the body—all the space that a person can reach with the body or any part of the body while remaining anchored in some way (that is, with nonlocomotor movement). As mentioned before, it *is* possible to perform some locomotor movements (such as stepping, jumping, hopping) while remaining in personal space.

General space is all the available space within some larger perimeter, such as the walls of a room or the boundaries of a playing field or court—all the space that a person can reach by locomotor movement (with the body not anchored).

• **The direction of movement.** The basic directions that movement can take, referred to as *directionality,* are these:

upward
forward
sideward
clockwise

downward
backward
around
counterclockwise

Each of these terms will be used in the context of explaining the key experiences contained within this chapter. One additional term often used with directionality is *laterality,* which refers to the situation in which *right* and *left* are used to indicate the correct side of the body for a movement.

• **The timing of movement.** A major concept involved in any movement is its *duration,* or *timing.* Movement can be done to *one's own timing,* to *a partner's timing,* to *a group's timing,* or to the *timing supplied by some other outside source,* such as a recorded musical selection, a musical conductor, the regular operation of some mechanical device (e.g., a metronome).

• **The initiation/response leading to movement.** Students' movement can be initiated in a number of ways. First of all, it can be self-initiated (by the student) or leader-initiated (by the teacher or another student). If leader-initiated, the student's movement might be an imitation of a presented movement or it might be the student's original creation in response to some movement problem posed. If self-initiated, the student's movement can also be an imitation of something seen in the past or an original movement, planned and created by the student during exploration.

In addition to understanding the concepts just outlined, it will be helpful to have in mind the basic movement abilities that children must bring to all four broad areas of movement.

• **The basic movement abilities.** For children, or learners of any age, to be successful with the four broad areas of movement, they must have these prerequisites, which are part of kinesthetic intelligence:

They need strength. Until children have developed sufficient body strength, they are unable to perform many of the fundamental motor skills involved in either locomotor or nonlocomotor movement. For example, bending and straightening the legs while pumping a swing cannot be done by weak legs. Throwing a ball is difficult when arm strength is lacking. Locomotor movement generally requires even greater strength. Hopping, skipping, or even walking all require a certain amount of whole-body strength. This strength should have developed in children as they used their bodies in countless informal ways during the preschool years.

They need balance. Balance includes, among other things, the strength to maintain one's body in a position that resists the force of gravity. To decide if a child has balance, watch for this: Can the child carry out most common motor tasks without falling over? Can the child move without bumping into

During exploration of purposeful movement, students discover there are many different ways to balance

people or objects? Can the child stop quickly without falling down? Without such abilities as these, the child will certainly find it difficult to do more complicated tasks, to land from a jump or take off from one foot and land on the same or opposite foot (hop or leap). Like strength, balance should develop in the preschool years as the child has many natural opportunities to run, jump, hop, and so on.

They need coordination. General body coordination, as well as eye-hand and eye-foot coordination, is necessary for all four of the broad areas of movement. Getting the parts of the body to coordinate, or work together, requires much natural repetition of movements in the years before the child enters school. The preschool years are not the time to *teach* coordination, but they are the time to model and support and encourage children as they try specific movements with variations and extensions of those movements.

They need basic timing. Ability to independently feel, express, and keep steady beat is critical to developing ability in the four broad areas of movement. Children, and learners of any age, who appear awkward in their movements or who have difficulty repeating a single movement or a sequence of movements often lack this sense of timing. (Basic timing is discussed at length under the key experience *feeling and expressing steady beat* in Chapter 6.) Again, like the other prerequisite basic movement abilities, basic timing can develop in children before school age if they have plentiful natural opportunities to experience moving and controlling their bodies in personal and general space. (See Insert 5.3 on the next page.)

We encounter numerous children who have been very sedentary throughout their preschool years and who lag in development of the basic

5.3

Natural Development of the Movement Prerequisites

Brian, age 2½ often wandered into the dance area when Phyllis Weikart was teaching folk dance to teenagers in one of High/Scope's summer institutes. As the group was warming up by moving about the area, he delighted in galloping around and around, always moving in the same direction as everyone else. The teenagers commented that Brian, despite his energetic and enthusiastic participation, never ran into any of the 50 teenagers swirling around him. And, they observed with some wonder, he never fell down! Though this may have seemed surprising to the teenagers, many of whom were struggling with those same basic aspects of balance as they learned to folk dance, it was not surprising for Brian. Having had many varied natural play experiences involving large-muscle movement in his short lifetime, Brian was well on his way to having the strength, balance, and coordination he would need for someday participating in more advanced movement activities.

5.4

Enabling the Learner: Overview of Terms and Concepts

Movement Terms

static		dynamic
single		sequenced
two sides	one side/other side	alternating
symmetrical		asymmetrical
ipsilateral		contralateral

Space for Movement

personal	general

Directionality of Movements

upward	downward
forward	backward
sideward	around
clockwise	counterclockwise

Timing of Movement

own	partner's	group's	external source

Movement Initiation/Response

learner-initiated	imitate
leader-initiated	create

Basic Movement Abilities

strength	balance
coordination	basic timing

Movement Awareness Concepts

body	space
language	time

movement abilities. For these children, the time spent in purposeful movement exploration in early elementary school becomes even more valuable and necessary.

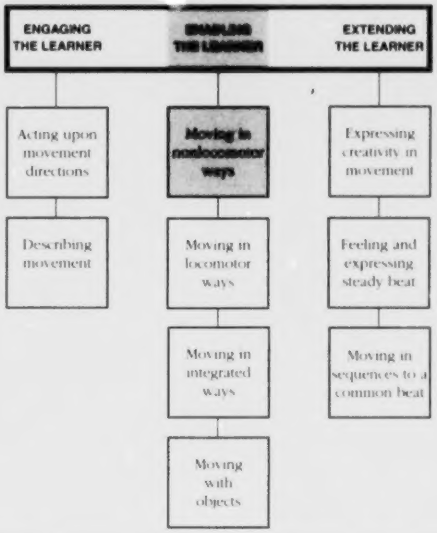
One other underlying concept, that of children's **movement awareness,** has not yet been mentioned here. This concept becomes most clear when discussed in the context of the key experiences covered in this chapter about "Enabling the Learner." The four broad types of movement awareness—*body awareness, language awareness, space awareness,* and *time awareness*—will be explained in terms of the two key experiences *moving in nonlocomotor ways* and *moving in locomotor ways.* The significance of body, language, space, and time awareness to *moving in integrated ways* and *moving with objects,* of course, goes without saying, since these latter two key experiences also involve both locomotor and nonlocomotor movement. (See Insert 5.4 for a summary of this chapter introduction.)

O‑ Moving in Nonlocomotor Ways (Insert 5.5)

It is usually easier for children to move in nonlocomotor ways than in locomotor ways (see the definitions on p. 87). This is because nonlocomotor movement involves keeping the body fixed, or *anchored,* in some way; it also does not involve transferring weight (e.g., from one foot to the other), as locomotor movement does. Moreover, because nonlocomotor movement occurs in personal rather than general space, it does not present the difficulties of bumping into people and objects. Most nonlocomotor movements require less strength, balance, and coordination than locomotor movements require. Recall that in the Chapter 1 discussion of the body as the primary learning center, we described infant-toddler motor development as proceeding from nonlocomotor to locomotor skills.

5.5

Key Experiences in Movement


ENGAGING THE LEARNER
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Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

Body Position in Nonlocomotor Movement

The definition of nonlocomotor movement given at the beginning of this chapter did not elaborate on all that nonlocomotor movement can involve. For example, as long as the child's body remains anchored in some way—seated or lying down, standing on one or two feet—movement is considered to be nonlocomotor. Some common variations on anchored body positions are given in Insert 5.6 on the next page.

Using one or another of these anchored positions, children can make symmetrical statue shapes and perform *symmetrical nonlocomotor movement* (e.g., move both arms or both legs in the same way, perhaps bending and straightening them). They can also make asymmetrical statue shapes and perform *asymmetrical nonlocomotor movement* (e.g., move one hand in one way while moving the other hand in another way, perhaps patting with one and swinging with the other).

Similarly, in an anchored position such as seated or lying down, children can move only one side or only the other side (perhaps swinging just one arm), or move alternating sides ("pedal" with one leg and then the other). Nonlocomotor movement might also involve the trunk, for example, in a twisting movement while either seated or standing.

When standing is the chosen anchored position, at least one leg remains in contact with the floor. Possible nonlocomotor movements then are

5.6

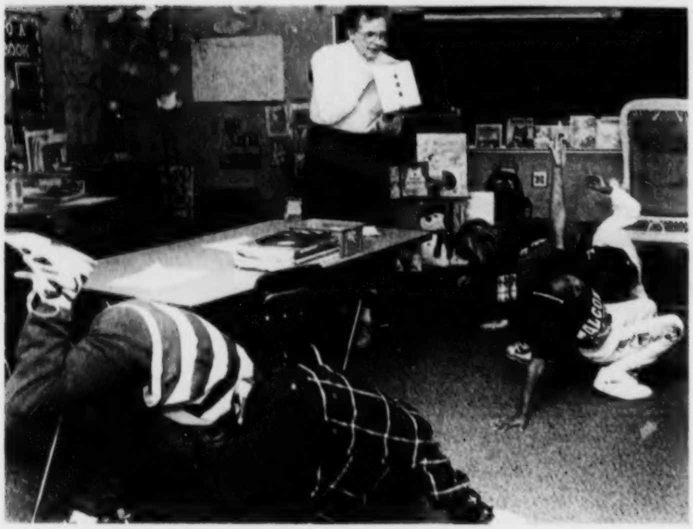
Some Anchored Body Positions

- Lying on one's back (supine position).
- Lying on one's stomach (prone position).
- Lying on one's side (side position).
- Sitting with legs outstretched (long sitting position).
- Sitting with legs folded (cross-legged position). *Note:* Please do not encourage children to sit with legs on the floor, knees bent and together, and lower legs out to the side—a position that puts undue stress on the knee joint.
- Kneeling or curled in a ball.
- Standing with feet close together, with feet far apart, or balanced on one foot.
- "Crab-walk" position, in which the body faces the ceiling and only feet and hands touch the floor, or only one foot and two hands touch the floor. This position can also be formed with the body facing the floor.
- Static balance in any pose or shape.

bending/straightening various parts of the body and bouncing the toes or heels up and down, or bouncing the whole body. (When bouncing the heels, the toes remain in contact with the floor, and vice versa.)

It is important to realize that nonlocomotor movement can be gross-motor (involving big movements with the whole body, arms, or legs) or fine-motor (involving small movements with the hands, fingers, feet, toes). Later, when considering *moving in integrated ways* and *moving with objects,* you will encounter many nonlocomotor movements of both types. Consider, for example, the arm movements involved in throwing or striking a ball; the arm, hand, and finger movements involved in writing with a pen or pencil, or drawing, or cutting with scissors, or fingering a musical instrument. Nonlocomotor leg movements come into play in pumping a swing, kicking a ball, playing an organ, and doing aerobic routines, to name a few examples.

Encourage children to be creative and to try nonlocomotor movement from a number of positions or from statue shapes. Give them opportunities to be the leader in sharing their positions and movements with the others. Encourage children to notice and try out the positions and movements their peers discover.



In a statue shape game, the three dots on the teacher's card indicate that students should try to make a statue with exactly three body parts touching the floor.

Statue shape games, such as those found in Chapter 7, give children a chance to explore the positions that might be used for nonlocomotor movement. The initiation and exploration involved in these games allow children to develop real ownership of nonlocomotor movement concepts. You will be surprised at the inventiveness and creativity that children will show!

5.7

Babies and Toddlers Locate and Identify Body Parts

Children at very young ages delight in playing games that involve locating and identifying their eyes, ears, mouth, nose, and so on. For example, Mother asks, "Eric, where is your nose?" and Eric puts his finger on his nose. Asking the question "Where is Daddy's nose?" causes Eric to put his finger to Daddy's nose. In this way, toes, fingers, head, and so on, take on meaning for the child. At the toddler stage, children like to play copy-cat games in which the adult puts hands on knees when the toddler does so, or the adult puts hands over eyes when the toddler does so. Even before the *names* of some body parts are part of the child's active vocabulary, the *locations* of those body parts may be growing familiar. Though "shoulder" may be a big word for the child, patting his or her shoulder when Mommy pats her shoulders may be fun.

Developing Body Awareness in Nonlocomotor Movement

Children have body awareness when they know how each part of the body can move and what movement relationships exist among body parts. Active learning experiences involving nonlocomotor movement are an ideal opportunity for children to develop this awareness. Naturally, body awareness must be based on knowing the locations of different parts of the body, knowledge that most children have begun to develop before kindergarten (see Insert 5.7). Being able to not only recognize but also use the labels for the various parts of their bodies is part of children's language awareness, which is the subject of the next section of this discussion of nonlocomotor movement.

There are **12 basic nonlocomotor movements**—ones that children can do while remaining in personal space with their bodies anchored in some way. Insert 5.8 provides a "menu" of these. As children explore these nonlocomotor movements one-by-one, they can construct such a menu for the classroom. By grade 2, their menu should be complete.

5.8

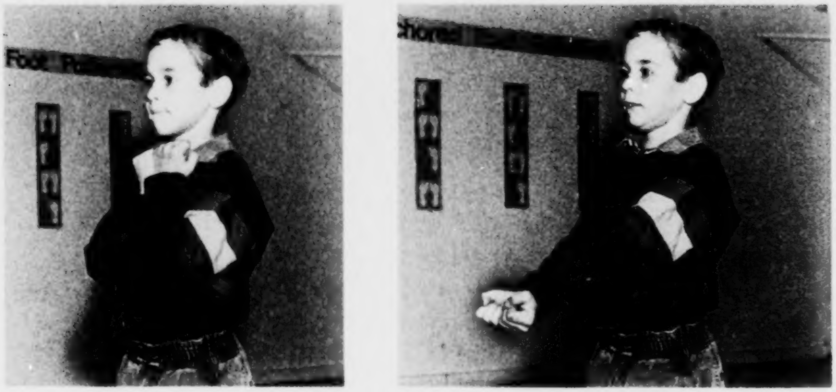
Nonlocomotor Movement Menu

bend	straighten
twist	turn
swing	rock
push	pull
curl	stretch
rise	fall

Some of these nonlocomotor movements might be considered as pairs (e.g., bend/straighten) or opposites (e.g., push/pull). Each of the nonlocomotor movements can be done in various ways, as will be explained next.

Bend: Think about what areas of the body can bend. The neck can bend sideward and also forward and backward. (Because of the stress it puts on the spine, bending the neck should not be encouraged.) The arms, together or separately, can bend at the elbows, and the hands can bend at the wrists. Legs can bend at the knees. The entire body can bend at the waist, going forward, backward, or sideward. As with bending the head, bending the body backward at the waist should be done only with care.

Straighten: Straightening is usually thought of in connection with bending, which creates a sequence of movements. For example, the arms might bend at the elbows and then straighten. The body might bend forward at the



This boy creates a sequence of two movements when he first bends and then straightens both arms.

waist and then return to a straight position. While lying down or standing, one can bend both knees and then straighten them. Straightening can also include straightening one's back (sitting up straight) from a slouched position.

Twist: Various parts of the body—arms, legs, wrists, ankles, neck—can twist, which means to rotate partially. At the shoulder (or hip) arms (or legs) can twist, thus rotating part of the way around before returning to twist in the other direction. Twisting implies a *partial rotation.* If the elbow is bent, the forearm can twist without the entire arm twisting. The same is true of the lower leg when the leg is bent at the knee. The neck and trunk can twist partially around.

Turn: Turning takes the arm, hand, finger, foot, or leg all the way around in a 360 degrée movement. The movement, which involves the body part tracing a circle as it fully rotates around a single point (such as the arm tracing a circle in the air as it rotates from the shoulder) is a turning motion rather than a twist. The hand, of course, rotates at the wrist; the finger, at the knuckle; the foot, at the ankle; and the leg, at the hip. The head might also turn around to describe a circle, but this is not advisable because of the force it exerts on the neck. Likewise, turning the upper body fully around at the waist is possible, but this may exert undue force on the spine. Young children are sometimes observed turning one arm quickly around in a "wind-up" motion.

Movement Words

Here, first-graders working with nonlocomotor movement swing *their arms in front of them*

Swing: We use this term for a two-way motion, like that of a child's swing. For example, the two-way swing of a leg might be forward and backward, or sideward, from one side to the other. Swinging may mean two arms or two legs moving together, one arm or leg moving by itself, or the two arms or two legs moving in an alternating pattern (one arm swinging forward as the other swings backward). The arms and legs swing from the shoulder and hip joint, respectively. Obviously, to swing both legs, a person would have to be in a position that removes weight from the legs (e.g., lying down).

Rock: This is sometimes referred to as "swaying." Rocking implies a partial shift, but not a full transfer, of weight. Rocking can be sideward (from one side to the other), or forward and backward. If one is sitting and rocking, the body weight shifts almost enough to cause loss of balance, but the body rocks back before balance is lost. When a person is standing and rocking, both feet remain on the floor as the body weight shifts from side to side or forward and backward; rocking forward and backward in this case means rocking from toes to heels, which is quite difficult to do without losing balance. In any rocking motion, the axis of the movement is at the floor. *Note:* When rocking sideward, if the person's foot leaves the floor as he or she rocks to the side, a complete transfer of weight occurs in place, and therefore the rocking becomes locomotor (unanchored) movement, as steps are taken first on one side and then the other side.

Push: This is a movement away from the body that implies a steady force being applied to the body part that is performing it. It might be thought of as simulating a pushing action against an object. Pushing may be done with the arms or legs and involves the concept of *intensity* (to be discussed later). Regardless of which limb is involved in pushing, it is safer for that limb to remain partially bent rather than fully extended.

Pull: This is the opposite movement from pushing and applies steady force toward the body. We usually think of pulling with the arms, because the movement usually involves grasping an object. It is, however, also possible to simulate grasping and pulling an object with the arms or legs.

Curl: Three parts of the body can curl: fingers, toes, and the spine. These are the only body parts that curl, because curling can only occur at joints where there are short bones on each side of a joint. A joint with long bones on each side (such as an elbow or knee) is not suitable for a curling motion, so legs and arms are not able to curl.

Stretch: This movement is often paired with curling, as bending was paired with straightening by describing the two movements as opposites. Actually, it is possible to stretch from a straight position to a hyper-extended (straighter) position of the arms, legs, or spine without first bending or curling. Stretching upon awakening in the morning,

During their physical education class, students demonstrate different ways to curl the spine. Only certain body parts—the fingers, toes, and spine—are capable of curling.

for example, is hyper-extension of the arms, legs, and spine. Stretching is usually a fluid motion, with the stretch being long, gradual, and accompanied by force—rather than short in duration.

Rise: Just as the whole body can move forward, backward, sideward, and around, so can it move upward and downward. If the entire body moves in an upward direction, this is rising. We rise, for example, from a squat or low position.

Fall: This movement is the opposite of rising. It consists of allowing the body to move in a downward direction, often to a squat position.

In addition to these 12 basic body movements, there are innumerable other gross-motor and fine-motor actions that children can explore. Some examples are listed in a menu in Insert 5.9.

Narrowly demonstrating or describing many of these actions for children is not only difficult but also inadvisable. It is better to allow room for learners to bring something of their own interpretation to an action. One child's way of thumping may be different from another child's way of thumping, for example. A teacher might say (before demonstrating), "This is one way to thump. Can you think of other ways to thump?" As children explore movement of the arms, fingers, legs, and feet, encourage them to use their own words to describe their actions. They will thus be combining these actions with language awareness, which is discussed in the next section.

5.9

Nonlocomotor Action Menu

touch
punch
float
thump
press
slide
pound
slash
dab
shake
wring
snap
thrust
flick
clap

Children say "POUND, POUND, POUND" as they show how they can pound with two hands. Each child shows his or her individual interpretation of the action word.

In the K–3 classroom, there are many opportunities to encourage exploration of nonlocomotor movement. The following scenario is but one example:

> *During transition time in the first-grade classroom, Mrs. Johnson has given her class the following task: They are to explore several ways to twist and turn different parts of the body. After the children have had a few minutes to explore, volunteers are encouraged to share their ideas for the class to copy. Nathan shows how to twist and then turn both legs from a seated position. Erica indicates that she has discovered a different way to twist and then turn her arms while seated. After both children have been the leaders for the class and teacher to copy, Mrs. Johnson asks, "How is Erica's movement different from Nathan's?*

Examples of opportunities for younger and older learners to explore nonlocomotor movement are provided in Inserts 5.10 and 5.11.

By second grade, most children should be aware of the locations of common body parts and should have discovered at least the basic nonlocomotor movements that can be performed by each part. If children have not made these discoveries naturally, then teachers can initiate active learning experiences in which the discoveries can be made.

5.10

Preschool Children Explore Swinging

In preschool there are many opportunities to encourage nonlocomotor movement by seizing moments when children are moving in a nonlocomotor way or by initiating movements to see if children can copy and then devise their own ways of moving. The teacher can label the actions of children at planning time, at work time, and at recall time. Additional opportunities exist at small-group time, at snack time, during transitions, and at large-group time. The following scenario is one example:

> *During large-group time, preschool children are following their teacher's way of swinging his arms from side to side. Mr. Stewart asks the children to find different ways to swing their arms. Peter shows he can swing one arm forward while swinging the other one backward. Margaret says, "I can hold onto Betsy's arms and swing my leg." Mr. Stewart encourages the other children to try Peter's and Margaret's examples and then to plan new ways to perform a swinging motion.*

5.11

Fifth-Graders Plan Ways to Move and Sing While Anchored

Older learners can creatively explore nonlocomotor movements and their extensions. They can be encouraged to create sequences of these movements and to design movement charts to represent their efforts. The following scenario is one example:

> *The students in Mrs. Thompson's music class are working in groups of four. Their task is to plan sequences of nonlocomotor movements and to put different vocal sounds and melodic pitches with their movements. The small groups are encouraged to share their movement sequences with the rest of the class.*

Developing Language Awareness in Nonlocomotor Movement

For the young child, simply *hearing* the word that describes a basic nonlocomotor movement (*bend, straighten, twist, pull,* etc.) or hearing the word for some other fine-motor or gross-motor action (*snap, thump,* etc.) is the beginning of developing language awareness in movement. The same may be said for children hearing the words for body parts (*upper arm, wrist, ankle, waist,* etc.). In the next section of this chapter, on space awareness, there will be other terms that children need to hear—words describing the "where" and "how" of nonlocomotor movement (*big, little, under, over,* etc.).

How do children have opportunities to hear and eventually use the words that describe movement? As pointed out in Chapter 4 in discussing the key experience *describing movement,* adults can use movement vocabulary with children from the very early years on. As we comment about specific movements that we or children make, we are helping to bring cognitive understanding to purposeful movement. Even with an infant, a mother can take a few minutes each day, while diapering, to bend and straighten the infant's legs and use the words "bend" and "straighten." As the child progresses from infant to toddler, the mother can name body parts and play such games as "Where is baby's nose?" and patty-cake. Children of any age, as well as many adult learners, may not have had occasions for some movement concepts to be labeled for them and may not have had opportunities for creative experiences with action words. (See Insert 5.12.)

As children hear adults repeatedly use the words for specific nonlocomotor movements as well as the term *nonlocomotor movement,* and as children attach meaning to these words by exploring various movements, they will begin themselves to use the language of nonlocomotor movement. The key experience *acting upon movement directions,* explained in Chapter 4, can involve children in responding to verbal directions that include nonlocomotor concepts and action words. In leading one another in movement response games, children will begin to use the language of nonlocomotor movement.

In addition to all the movement words listed under "Developing Body Awareness in Nonlocomotor Movement," there are many fine-motor and gross-motor action words that children hear and read in stories. These can also be explored with movement and become part of children's movement vocabulary. Integrating movement with language arts provides an active learning experience that not only enriches children's vocabulary but also brings clear meaning to words and concepts.

5.12

Picking Up the Language of Movement

When Zachary, a 2½-year-old, was swinging his arms, his father commented, "You're swinging your arms back and forth." Several days later, Zachary announced to a friend, "Watch, I'm swinging my arms." First he had seen someone performing the movement and had copied it. Then, when someone labeled the movement for him, he picked up the language. With the added use of language for his movement, the concept of swinging was taking shape in Zachary's mind.

As children are encouraged to plan what movement they will perform, as they talk about movement while doing it, and as they recall their purposeful movements, they are developing language awareness.

Developing Space Awareness in Nonlocomotor Movement

Children's space awareness has to do with realizing their body's relationship to personal and general space. This means understanding the "where" and "how" of nonlocomotor movement.

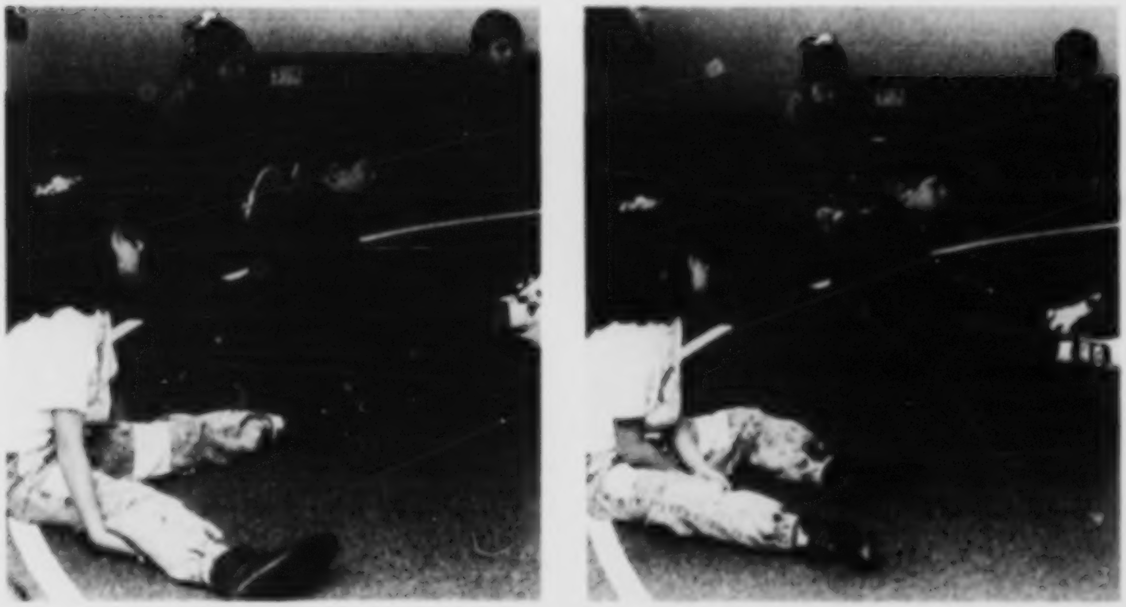
The "where" of nonlocomotor movement involves the following list of **spatial relationships** (which are sometimes thought of as contrasting elements):

in(side)/out(side)
in front of/in back of
around/through
near/far
between/alongside
up/down
over/under
on/off

These spatial relationships give added meaning to the basic nonlocomotor movements that children perform. For example, a child may bend an arm so it goes *down* or *up;* twist both arms *near* the body or *far* from the body; or shake both hands *in front of* or *in back of* the body.

The "how" of nonlocomotor movement involves what we call *extensions* of movement. The common **space awareness extension concepts** are these:

direction
level
size
pathway
intensity(force)
shape
flow
timing

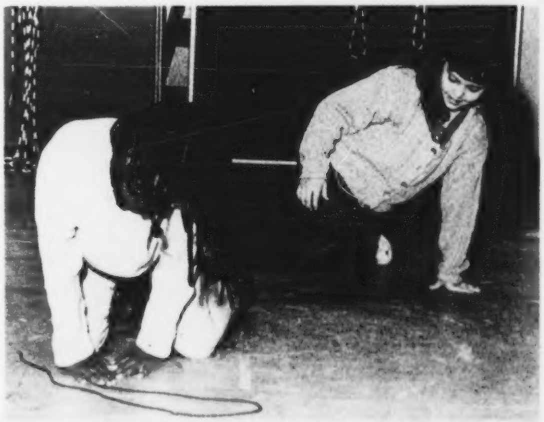


With movements of their hands, children demonstrate the spatial relationships under and between. They are developing space awareness in nonlocomotor movement.

Each of these concepts, except timing, is explained here in terms of nonlocomotor movement. The extension called timing will be explained under "Developing Time Awareness in Nonlocomotor Movement." In connection with *moving in locomotor ways*, the next key experience, we will have more to say about these spatial relationships and extension concepts.

Direction: Does the nonlocomotor movement (the bending, pushing, stretching, etc.) go upward and downward? Does the movement go forward and then backward (as a swinging movement might)? Does it go sideward or back and forth (as a rocking movement might)? Does the movement go partially around (as a twisting movement would) or all the way around (as a turning movement would)? If it goes around, does it go clockwise or counterclockwise? Does the movement go over or under another part of the body? Does the movement go out (as a push away from the body) and in (as a pull toward the body)? These are the directional concepts that can be explored with children in simple and gradually more sophisticated ways, depending on their age and experience. All movement has a directional aspect.

Level: The level of a movement indicates whether it is performed in a *high*, *middle*, or *low* plane. Below the knees, as one is standing, is usually thought of as low level; anywhere between the knees and shoulders is middle level; and anywhere above that is high level. You might ask children if they are swinging their arms high—or low. Or, as a movement problem to solve, ask them how they might bend and straighten their legs at a high level. Later, when objects are added to movement, it is meaningful to ask such questions as "Did you catch the ball up high? Or down low?" "At what level do you want to wave your scarf?"



Keeping their bodies at a low level, students use one part of their body to follow the pathway formed by the yarn they have laid out on the floor. Exploring the extensions of level and pathway are part of developing space awareness in nonlocomotor movement.

Size: A nonlocomotor movement's size may be *large*, *medium*, or *small* (*big* and *little* are often used with younger children). For example, an arm might turn to make a small, a medium, or a large circle. A swing of the leg might be a large swing—or a small swing. (Increasing the size of a movement often also increases its intensity, which is another extension concept.)

Pathway: Just as a pencil draws various kinds of lines on paper, you can think of a moving body (or body part) as drawing *straight*, *curved*, or *zigzag* pathways on the ground or in the air. For example, when swinging arms forward and backward, you can think of the finger tips as describing a curved pathway in the air. Moving one hand from left to right in front of the body to denote a musical phrase describes a straight (or perhaps a curved) pathway.

As both legs bend and straighten (starting low and moving higher and higher) while one is lying on the back, the feet describe a zigzag pathway.

Intensity: This refers to the force of a nonlocomotor movement—whether it is *strong* or *weak*. For example, pushing or pulling can be strong or weak. Bending and straightening can also be performed with little or great force, as can twisting, turning, etc.

Shape: The shape of a statue refers to whether it is *symmetrical, asymmetrical, wide, narrow, curved, round, straight, angular.* The shape of a nonlocomotor movement usually is described as *symmetrical* (as when two sides do the same movement in the same way) or *asymmetrical* (as when two sides do the same movement in different ways). Both arms swinging in the same direction at the same time is symmetrical movement, but the two arms swinging in different directions is asymmetrical movement.

As they demonstrate a strong pushing motion, children show that they understand the concept of intensity. *This is one of the movement extensions involved in developing space awareness.*

Flow: The flow of a movement can be described as *smooth and sustained,* or *choppy and sudden (interrupted).* For example, pushing and pulling usually have a smooth flow to them, whereas bending and straightening might be done in a smooth way or a choppy way. Swinging and rocking usually are smooth. Movement representing action words may be performed in a smooth or a choppy way.

Clearly, there are many interrelationships between the spatial relationships and the extensions of movement. For example, a bending and straightening movement can be done **in front of** the body (spatial relationship) and can involve moving the arm **away from** and **toward** the body (direction). It can also be performed at about the **middle** of the body (level) in a **weak** manner (intensity). The hand can trace a **curved** shape (pathway) as the arm bends and straightens. To make the bending and straightening movement smaller, just the hand could bend and straighten at the wrist, instead of the whole arm bending and straightening at the elbow.

Developing Time Awareness in Nonlocomotor Movement

All movement involves timing—starting and stopping at certain points, repeating at even or uneven intervals, speeding up or slowing down, and so on. The **time awareness concepts** that can be developed with children as they perform nonlocomotor movements are these:

start/stop
getting faster/getting slower
fast/slow
even/uneven

Start/stop: Children need to develop the necessary control to be able to start and stop body movement. Some children begin moving and seem to be unable to stop or bring their movement under control. With purposeful movement and with many opportunities for movement exploration, most children can develop the ability to control starting and stopping.

Fast/slow: These terms describe the intervals between repeated movements or sequential movements, for example, the time between each swing of the leg or the time between each twist or turn of the arms. If the interval is short, it is fast movement; if the interval is long, it is slow movement.

Getting faster/getting slower: These terms describe what happens when the intervals between repeated or sequential movements become shorter and shorter (so the movement is getting faster and faster) or when the intervals become longer and longer (so the movement is getting slower and slower).

Even/uneven: If the intervals between repeated movements are equal, the movement has *even* timing. If they are sometimes long, sometimes short, the movement has *uneven* timing. For example, patting the knees may be done in even or uneven timing. Bending and straightening might also be done either way. When movement has even timing, we can talk about the movement's *steady beat.*

The time awareness concepts listed here relate to any movement that a child does independently, without regard for matching the timing of anyone or anything else. Synchronization of movement is not involved. For movements that two or more children will do together, the idea of *steady beat* becomes very important. Steady beat is discussed in more detail in Chapter 6 in connection with the key experience *feeling and expressing steady beat.*

Summary of Moving in Nonlocomotor Ways (Insert 5.13)

Of course, for children, the key experience *moving in nonlocomotor ways* does not occur in isolation. All the concepts related to nonlocomotor movement that have been discussed here—the body awareness, language awareness, space awareness, and time awareness concepts—have relevance to the other key experiences. Aspects of nonlocomotor movement—including the anchored body positions, the 12 basic anchored movements, and various other action words—can be involved when children are *acting upon movement directions* and *describing movement.* They can be involved when children combine two kinds of body movement in *moving in integrated ways,* as well as when children are *moving with objects.* They can also come into play when children are involved in the three key experiences *extending the learner,* which are the subject of Chapter 6.

5.13

Summary of Moving in Nonlocomotor Ways

Observable outcome
Comfort with and awareness of anchored movement in personal space

Concepts included
Anchored movement
Positions of the body
Body, language, space, time awareness
Action words
Twelve basic movements
Spatial relationships
Extensions—direction, level, size, pathway, intensity, shape, flow, timing

Next in this chapter, we look at another broad area of movement, which means another key experience important to *enabling the learner.*

O━ Moving in Locomotor Ways (Insert 5.14)

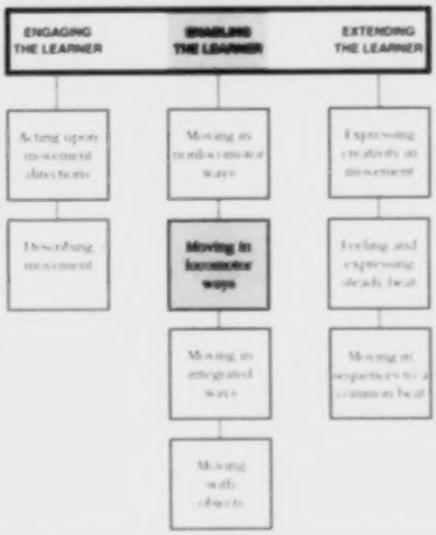
If achieving comfort and ease with nonlocomotor movement is enabling for children, achieving the same outcomes regarding locomotor movement is even more so. From watching helpless infants grow to relatively capable toddlers, we know that motor development begins with nonlocomotor (anchored body) movement and progresses to locomotor (unanchored body) movement.

Locomotor movement like rolling, crawling, and walking, in which body weight is transferred and general space is used, presents new challenges to young children in terms of strength, balance, coordination, and timing. It is one thing to move smoothly, stop, start, avoid falling, avoid collisions, or go faster or slower while remaining anchored and in one's personal space. It is quite another to do all this while transferring body weight and/or moving around the entire room or play space or playing field.

Locomotor movement in which the body remains upright, which is what we will concentrate on here, can include everything from the first faltering walking steps that a child takes to the more mature movements of running, skipping, hopping, marching, dancing, and playing sports. All of the variations of *moving in locomotor ways* with the body upright involve **foot patterns**—a complication that nonlocomotor did not present. Therefore, our discussion of how children develop comfort with locomotor movement, which again addresses **body, language, space,** and **time awareness,** will include an analysis of foot patterns involved in weight transfers.

5.14

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

Locomotor Movement Development

Developing the basic skills of *moving in locomotor ways* is a gradual process that begins when children are creepers and toddlers and extends into the preschool years as they develop natural interest in more and more challenging forms of locomotor movement (see Insert 5.15 on the next page).

By the time children reach kindergarten, they are ready to begin developing more mature patterns of locomotor movement. If they have not had enough early opportunities for natural play in which they use their lower extremities in locomotor movement, some kindergartners may appear to move awkwardly. They may lack the balance, strength, coordination, or basic timing needed for smooth locomotor movement that does not send them crashing into other children or

5.15

How Wesley Started Jumping

Shortly before Libby's grandson Wesley was 2 years old, he began trying to imitate older children whom he had seen jumping. He had simply watched others doing this new and strange locomotor movement until he himself felt ready to try it.

Seeing him jump, his mother commented on his jumping and joined in with him. Each time they jumped, his mother asked him if he wanted to do it again—and he did! After a few jumps, he discovered how much fun it was to fall down at the end of the jump, so he began adding this new twist to the game. He never seemed to tire of this newly discovered activity. Because he had initiated and was in charge of the jumping game, it went on for a very long time. When children initiate and adults then extend activities, keeping the children in charge, this kind of enthusiastic perseverance is often the result.

objects. Whether these awkward children lack visual or motor maturity, the solution lies in providing them with many varied opportunities for developing control of their bodies in general space.

Locomotor movement opportunities for elementary school students can be student-initiated or teacher-initiated, but they need to occur in a safe environment, free of "rights" and "wrongs," if students are to become truly comfortable with mature patterns of movement. As mentioned in the explanation of the **active learning approach,** teaching should be through engagement and encouragement rather than through direction. The teacher who sees a child attempting a new locomotor movement or a new variation on a locomotor movement can comment on this, encouraging the child to extend and explore further. As well as supporting the child's creative efforts, the teacher's comments can spur other children on to try the variations of the movement (see Insert 5.16).

After children have seen and copied many kinds of locomotor movements and after they have been encouraged to explore and talk about those movements, they begin to develop mature patterns of movement. Of course, children need adequate space and much repetition to develop complete comfort with such movements as galloping, skipping, running, and so on. Moving only in confined spaces usually does not result in

5.16

Encouraging Exploration of Locomotor Movement

The kindergarten children in the multipurpose room are exploring different ways to walk. Their teacher, Mrs. Mitchell, supports and encourages their efforts, commenting on the ways various children are moving. At one point, Mrs. Mitchell sees Marcia discovering a new way to place her feet. Marcia takes a step with one foot and then takes another step by placing her other foot perpendicular to the first foot. As she continues in this way, making each step perpendicular to the preceding one, she says, "Look, Mrs. Mitchell, my feet are making a 'T' when I walk." Mrs. Mitchell calls the attention of the other children to what Marcia is doing and asks if anyone else would like to share their special way of walking.

Movement Words

First-graders demonstrate body, language, space, and time awareness as they hop about in general space.

refinement of locomotor movement and does not bring motor skills to the level of freedom necessary for participation in sports, dance, gymnastics, and so on.

One of the observable outcomes of the key experience *moving in locomotor ways* is for children to develop awareness—body awareness, language awareness, space awareness, and time awareness. Each type of awareness, as it applies to moving upright in general space, with transfers of weight, is explained here.

Developing Body Awareness in Locomotor Movement

In the case of locomotor movement, body awareness involves realizing how one's body weight is transferred—in other words, realizing what foot patterns are used.

When we consider only the locomotor movements that involve upright movement, these four are considered the **basic locomotor movements:**

walk	**run**
jump	**hop**

If those four movements are extended, combined, or varied, four more basic movements result:

leap	**gallop**
slide (gallop sideward)	**skip**

According to the type of weight transfer involved, each of the eight basic locomotor movements can be categorized in at least one of the following ways:

1. **Movement that transfers weight from one foot to the other foot in an even- or uneven-timing pattern.** (*Walking, running, and leaping, plus the stylistic variations of jogging, marching, and tiptoeing,* are even-timing examples of this category; *galloping and sliding* are uneven-timing examples of this category.)
2. **Movement that transfers weight from two feet to two feet.** (*Jumping* is an example of this category.)
3. **Movement that transfers weight from one foot to two feet.** (*Jumping* is also an example of this category.)
4. **Movement that transfers weight from two feet to one foot.** (*Leaping and hopping* are examples of this category.)
5. **Movement that transfers weight from one foot to the same foot.** (*Hopping* is an example of this category.)

Only one of the basic locomotor movements combines two of these categories. *Skipping* is a combination of Category 1 (a step) and Category 5 (a one-foot hop). Fuller explanations of the basic locomotor movements follow:

Walk: This is a *dynamic flow* of movement from one foot to the other. Considerable strength and balance are required for the child, at about age 1, to begin this transfer of weight. The body is in continuous contact with the walking surface throughout transferring its weight from one foot to the other. A brief time exists when both feet are in contact with the surface. Arms work in opposition as the mature walk develops; when the right foot steps forward, the left arm swings forward. Although walking usually means moving about the general space, stepping, which is a modification of walking, can be performed in personal space. When walking in general space, awareness of surroundings becomes essential if the walker is to avoid bumping into people and objects.

Run: Like walking, this is a *dynamic flow* of movement from one foot to the other foot; it is usually a faster movement however. Running should develop naturally at about age 2, starting as an exaggerated awkward-looking movement and developing into a movement with a smooth transition from one foot to the other. Running requires more strength and balance than walking, because both feet are off the floor between contacts of the forward leg with the running surface. Arms work in opposition to the legs and swing forward in a much larger movement than that of walking. The trunk leans slightly forward to give the body momentum.

Jump: Jumping consists of a takeoff from two feet (or one foot) and a landing on *two feet.* A jump may send the body vertically upward, which would be jumping in personal space, or it may send the body forward for a distance, in general space. The arms help to propel the body upward or forward, and the knees bend on landing, to help absorb the shock.

Toddlers begin to jump around the age of 24 months, particularly if they have seen other children jumping. Their first jumps are often from a step or from some low object and consist of stepping off with one foot followed immediately by stepping off with the second foot. This usually results in one foot landing immediately after the other. Toddlers' fascination with jumping usually causes them to do it over and over again.

Two girls who are exploring different ways to land when jumping enjoy copying each other's original ideas.

By school age, children exhibit a range of developmental levels in jumping, depending on their prior experience and their strength, balance, coordination, and timing. Many kindergarten children who have led very sedentary lives are unable at first to jump with the feet leaving the floor. Experiences with jumping in an informal environment usually help children master the technique, however.

Hop: This consists of taking off from one foot and then landing on the same foot. Compared to jumping, hopping requires more strength, balance, coordination, and basic timing because of the one-foot takeoff and same-foot landing. Hopping also may be thought of as a two-feet takeoff and a one-foot landing, particularly when it is combined in a sequence with jumping. Hopping may be executed in personal space (going up and down) or in general space (going forward).

Leap: Like walking and running, this can be a dynamic flow of movement from one foot to the other, or it can be a single leap from two feet to one foot that spans a greater distance. Leaping can be thought of as an extension of running, with greater force in the leap, to extend the body for the height or distance. The arms work in opposition to the legs. The landing leg bends to absorb the shock of the landing force.

Gallop: Galloping is a combination of two weight transfers from one foot to the other foot. It occurs when one foot leads by lifting, bending, and reaching forward to take the weight as the rear foot quickly comes up to meet it, replacing the leading foot. The leading foot continues to lead throughout the gallop. Unlike the weight-transferring movements discussed thus far, the gallop is executed in uneven timing. The leading foot takes the longest time, and the rear foot, the shortest time.

The children in a first grade class are practicing sliding in the multipurpose room. This locomotor movement may be thought of galloping sideward

Slide: This movement, like galloping, is a combination of two transfers of weight from one foot to the other foot. The major difference is that the slide is performed sideward, whereas the gallop is usually done in a forward direction. Thus, the slide may thought of as a sideward gallop. The leading foot lifts, bends, and reaches in the direction of the slide, to be followed by the other foot coming to meet it and replacing it in supporting the weight. The uneven timing of the slide is identical to that of the gallop, with the leading (reaching) foot taking the longest amount of time.

Skip: As noted earlier, skipping is a combination of two *different* categories of weight transfer—one foot to the other foot, and one foot to the same foot—a step and then a hop. The timing is uneven, as in the gallop and slide. The first transfer of weight, the step, is the longer part of the skip, with the hop being the shorter. Skipping is the most difficult of the fundamental locomotor movement skills because the nonpreferred side must copy the same two movements (step, hop) that the preferred side has just done. Children who have basic timing and who can balance on either foot, hop in a steady beat on either foot, and gallop with either foot leading usually master the skip most easily. Beginning "skippers" often do the step and hop with their preferred foot, but then only step with the nonpreferred foot, leaving out the short hop. A child who has had many natural locomotor experiences and who has basic timing usually is able to skip before age 5.

Of course, learning to execute these locomotor movements involves learning the language of locomotor movement as well. As students explore each of the movements, they can construct for the classroom a menu of locomotor movements like the one shown in Insert 5.17. By first grade, their menu should be complete.

5.17

Locomotor Movement Menu

walk (march, tiptoe)
run (jog)
jump
hop
leap
gallop
slide
skip

Developing Language Awareness in Locomotor Movement

Language awareness means not only that children understand the term *locomotor movement* and the words (labels) used for specific locomotor movements but that they use those words to plan and identify what they are doing. Along with learning to label the basic movements (listed above), children of school age can gradually become familiar with the words that extend these movements and then use those words to plan and describe their extensions (extension words are listed on p.111 and p.114 in the discussions of space and time awareness).

As we have said before, language awareness develops early in life as adults comment to children about their movement: "Larry, you are jumping." "Mario is walking, but Mei Li is hopping." "Do you want to hop or skip to the gate?" Language heard is soon language used, as children incorporate the term *locomotor movement* and the words for specific locomotor movements and extensions into their play conversations. Adults have been the facilitators, as explained in connection with the Teaching Model in Chapter 2.

Developing Space Awareness in Locomotor Movement

Space awareness—understanding the "where" and the "how"—plays a most important part in executing locomotor movement because of the potential for bumping into people and objects when moving in general space. If there are a number of children moving at once, it is often a good idea for children to perform the four most basic movements—walking, running, jumping, and hopping—in personal space. Jogging, tiptoeing, and marching variations can also be done in personal space. However, practice in general space also is important and vital to developing freedom of movement and ability to control movement. Experience is the best teacher when it comes to traveling comfortably and safely in general space and developing awareness of space (see Insert 5.18). Certain basic locomotor movements, such as the gallop, slide, and skip, lend themselves only to general space.

Understanding where they are executing their locomotor movements in general space is part of children's space awareness. "Where," in this case, can be described by all of the same **spatial relationships** that we applied to nonlocomotor movement:

in(side)/out(side)
around/through
up/down
in front of/in back of
near/far
over/under
between/alongside
on/off

Awareness of these spatial relationships allows children to fine-tune descriptions of their locomotor movements: "I am skipping *in front of* Leonard." "We're jumping *up* and *down.*" "We're galloping *around* the field." "Let's try hopping *over* each red tile." "I'm stepping *on* and *off* the box."

Locomotor movement **extensions**—which concern the "how" of locomotor movement—are similar to those for nonlocomotor movement:

- direction
- size
- intensity (force)
- flow
- level
- pathway
- shape
- timing

There are a variety of ways that these extension concepts apply to *moving in locomotor ways.* Some of them are explained here (the extension of *timing* will be explained under "Developing Time Awareness in Locomotor Movement").

5.18

Strategies for Movement in General Space

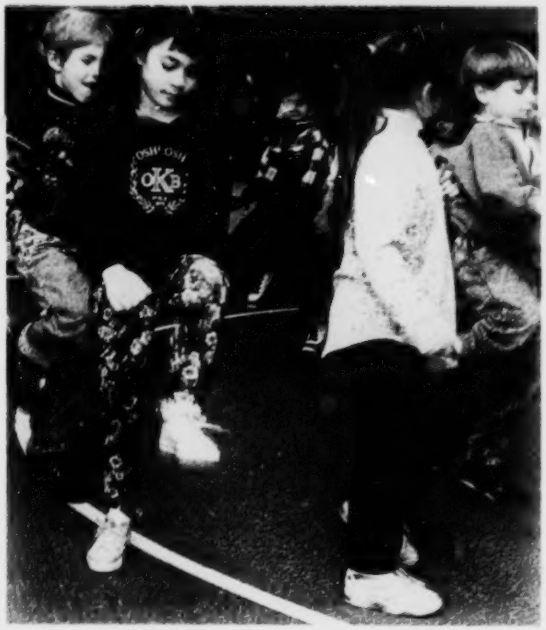
One strategy to use with younger children or learners of any age who do not move well in general space is to have part of the group moving (stepping, hopping, running, jumping) in general space while another part performs the same movement (steps, hops, running steps, jumps) in personal space. Then, as you observe the general-space movers working smoothly together, gradually increase the number of children moving in general space. Having everyone move in the same direction also promotes comfort with moving in general space.

Another useful strategy is to have half of the group on one side of the room and half on the other side, with the two groups facing each other. Then everyone crosses over to the opposite side of the room without touching anyone. Begin this game with walking, and then progress to other, more energetic locomotor movements, gradually increasing the speed with which the crossings are made. Once learners can perform the basic locomotor movements in general space without bumping into other people and objects, they are ready for extensions and combinations of those movements.

Direction: The basic directions that locomotor movement can take (often referred to as the *directionality* of movement), as first listed on p. 90, are these: **upward, downward, forward, backward, sideward, around, clockwise,** and **counterclockwise.** If a movement involves using a specific side (right or left side) of the body—for example, leading with the right side while sliding—*laterality* as well as directionality is involved. Every movement a person performs has directionality that can be made conscious. Now let us consider each of the basic directions.

Movement can be forward or backward. When children travel through space, they generally travel forward, the direction in which they are facing. They walk, run, march, jog, tiptoe, leap, gallop, and skip in this forward direction. They also jump and hop forward. Children often experiment with traveling backward, or opposite to the direction they are facing. Walking backward is commonly tried by preschoolers, and even by toddlers. Many of the locomotor movements used to travel forward can also be used to travel backward, but it takes more balance and coordination to do so.

Movement can be sideward. Traveling sideward is primarily done by sliding. However, children enjoy trying to perform the other locomotor movements in a sideward direction— walking sideward, hopping sideward, tiptoeing sideward, and so on.



Skipping around the room, these children practice the most difficult of the fundamental locomotor skills.

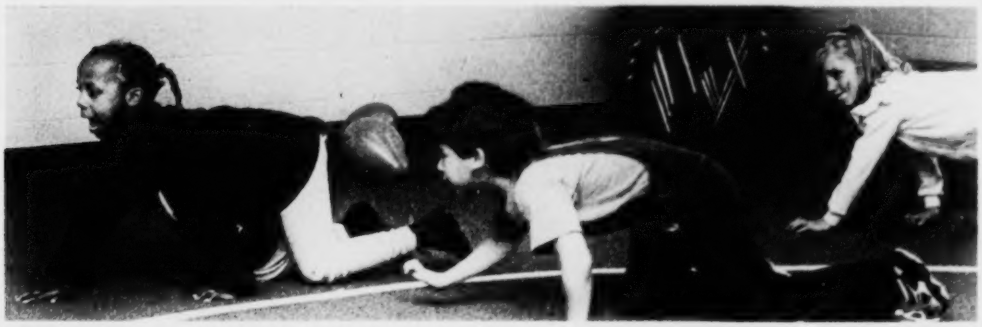
Movement can be around—in a circle. Children can use any of the locomotor movements to travel around in a small circle in personal space or in a large circle in general space. The body can also turn around and around while traveling around the room. Children can be encouraged to experiment with moving their body in a forward, backward, or sideward direction while traveling around.

Movement can be clockwise and counterclockwise. Students in second grade and beyond should begin to understand what it means to move clockwise and counterclockwise as they travel around in personal space or in general space, either alone or with others. These directions are best understood if children imagine that they are facing twelve o'clock on a clockface on the floor.

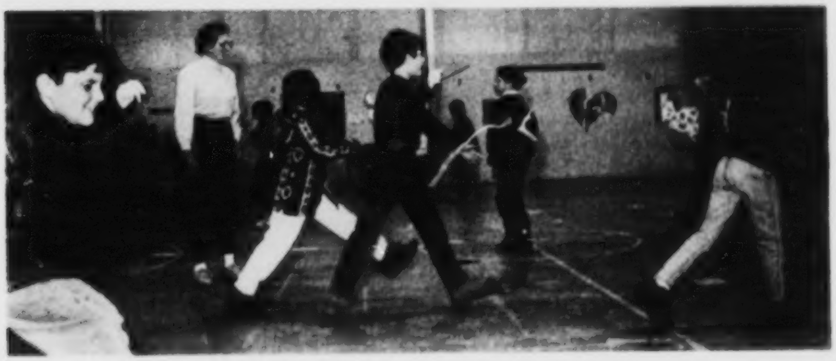
Level: As explained in connection with nonlocomotor movement on p. 102, the concept of level generally involves movement in three horizontal planes—*low, middle,* and *high.* For example, rolling and crawling are locomotor movements performed at a low level. Crouching the body toward the floor would permit the approximation of a low level.

Though it is not possible to have the whole body at a middle level (defined as the level between knees and shoulders when standing upright), one can do locomotor movement and place the arms, head, or one leg at middle level.

Similarly, moving at high level (defined as shoulder height and above when standing upright) is difficult for the *whole* body, but high-level movement



Children crawl about the space to demonstrate what it means to move at a low level. *Level is one of the extensions concerning the "how" of movements.*



Demonstrating how the size of a movement may vary, these students follow the teacher's verbal directions and use large *steps as they walk about the gym.*

can be approximated by jumping and drawing the knees up. Stretching and reaching both hands straight up is another way to bring parts of the body to a high level with movement. Jumping on a trampoline would be a way for a student to approximate high level. Walking on a balance beam is another way to do this. Due to the difficulty of making direct application to *level* in locomotor movement, we have addressed the concept more completely in relation to nonlocomotor movement.

Size: While moving in locomotor ways, children can vary the size of their steps or leaps or jumps or hops, making them *large, medium,* or *small. Big* and *little,* or *long* and *short,* are other terms often used for these size extensions in locomotor movement. Children also enjoy playing with the idea of size as they walk, run, slide, and so on in general space with large and small, or big and little, movements.

Pathway: As with nonlocomotor movement, the pathway of a locomotor movement can be thought of as a *straight, curved,* or *zigzag* line that the body "draws" while moving. In the case of walking, hopping, galloping, skipping, etc., children can think of their feet tracing a line across or around the floor as they move. To make this idea concrete for children, the teacher might use tape or cutout footprints to mark some pathways on the floor. Children can plan and mark pathways for themselves as well. Eventually, they may be able to draw their pathways on paper in recalling how they moved.

Part of developing space awareness in locomotor movement is trying different pathways. *These students are hopping in a* straight pathway

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Intensity: The intensity, or force, of locomotor movement depends on how much effort the movement takes, or the style with which it is performed. For example, a child's walking steps might be *weak* or *strong;* jumping might be *hard* or *soft;* leaping might be *heavy* or *light.* Once children are comfortable with a particular locomotor movement, they enjoy exploring the various styles they can do it in and applying labels to what they are doing.

Shape: The shape of a locomotor movement (of walking steps, running steps, marching steps, jumps) may be *narrow* or *wide.* The shape of a movement can also involve the concepts of *symmetrical* or *asymmetrical.* For example, jumping is a symmetrical movement. But a single walking step, running step, or leap is asymmetrical. Likewise, a galloping step, a slide, and a skip are asymmetrical.

Flow: This concept also concerns style. Walking, for example, can be *smooth and sustained* or *choppy and sudden;* so can running, skipping, hopping, sliding, and so on. If one is running downhill, the movement is usually smooth and sustained. If several children are skipping in a crowded room (for example, in various directions around the classroom), the flow of the movement might often be interrupted as various children stop to avoid one another. Some locomotor movements usually look *smooth* (running, walking), whereas others often look *choppy* at first (hopping, skipping). Once children are comfortable with the basic movements, it is interesting for them to explore how a movement such as skipping can be made smoother or how a movement such as walking can be made choppy.

Actually, the **flow** of a locomotor movement often is affected by another extension—the **timing** of the movement. This extension is considered next, in discussing children's time awareness.

Developing Time Awareness in Locomotor Movement

Timing is an essential part of locomotor movement. Therefore it is not surprising that locomotor movement involves the same **time awareness concepts** that we discussed in connection with nonlocomotor movement:

start/stop

getting faster/getting slower

fast/slow

even/uneven

Start/stop: Though it may sound simple, being able to stop a locomotor movement, once started, takes practice. For example, some children stop their running, skipping, galloping, or hopping by straight-arming a person or object in their path. Very young children sometimes stop by falling down. This may be because they lack the body control or the balance necessary for stopping. Practice in stopping might involve someone saying "stop sign" or "press pause" or "freeze frame" when children are moving, as a signal for everyone to stop. (Using a two-word signal, instead of just one word, gives a little time for preparing to stop.)

Children's time awareness develops as they show what fast movement around the room means to them.

Fast/slow: This concept has the same meaning for locomotor movement as it had for nonlocomotor movement. For example, if the interval between hops, or steps, or skips, or leaps is consistently short, the movement is *fast*. If the interval is consistently long, the movement is *slow*. Children can explore which movements are easy to perform in a fast rather than a slow way (skipping or hopping, for example) and which can easily be either fast or slow (walking or running, for example).

Getting faster/getting slower: The intervals between the repeated steps, leaps, hops, slides, or skips of locomotor movement can gradually shorten, thereby making the walking, leaping, hopping, or sliding become *faster*. If the reverse happens, if the intervals grow steadily longer, the locomotor movement becomes *slower*. There is much that is enjoyable for children to explore in making their locomotor movement speed up and slow down in this way.

Even/uneven: The basic locomotor movements that are considered to be *even* are walking, running, leaping, jumping, and hopping. Galloping, sliding, and skipping are *uneven* because they can be broken down into "steps" that are of alternating (long, short, long, short, . . .) duration. Any locomotor movement can be explored for ways to make the intervals between movements the same (even) or the intervals between movements different (uneven). For example, a walking pattern of two quick steps and one slow step creates an uneven way to walk—a two-step in dance.

With the youngest children (preschool and kindergarten), we recommend concentrating on the time concepts of *stop/start* and *fast/slow*. Then add the concepts of *getting faster/getting slower* in first grade. The other time concepts that we have explained here are more abstract and more complex and therefore should be delayed until second grade. These are approximate grade guidelines. Children who have had many more experiences may be ready sooner.

Summary of Moving in Locomotor Ways (Insert 5.19)

Two important guidelines to keep in mind when children are developing comfort and awareness with locomotor movement are these:

- During exploration, children do not need to be concerned about moving with precise timing, all on the same beat.
- During exploration, children do not need to be concerned about all starting locomotor movement foot patterns on the same foot, at the same time.

5.19

Summary of Moving in Locomotor Ways

Observable outcome:
Comfort with and awareness of nonanchored movement in personal and general space

Concepts included:
Nonanchored movement
Personal and general space
Body, language, space, and time awareness
Eight basic movements
Five basic transfers of weight
Spatial relationships
Extensions—direction, level, size, pathway, intensity, shape, flow, timing

Keep in mind that the exploration that precedes refinement of any motor skill should allow children to try without fear of being wrong, without fear of not meeting adult specifications.

When children are comfortable with the basic locomotor movements that they can perform while upright—walking, running, hopping, jumping, leaping, galloping, sliding, and skipping—they should be able to move in general space without falling down or bumping into people or objects. At that point, they will be able to demonstrate mature patterns for the movements. When they are familiar with the foot patterns involved and have explored and talked about all the "where" and "how" aspects of locomotor movement, they will exhibit and use problem solving and creativity. (Problem solving and creativity will be discussed further in Chapter 6.)

With body, language, space, and time awareness well established for locomotor movement, it is time to explore combinations of the basic movements and combinations of the space and time awareness concepts. Children will find locomotor movement rich in inventive possibilities (see Insert 5.20).

Comfort with the basic locomotor movements and combinations of these movements can be an asset in learning more complex skills. Think of the foot patterns involved in dribbling a soccer ball, moving down a basketball court, or moving around a tennis court. Marching bands and show choirs use intricate foot patterns as well. And foot patterns are the essence of dance—ballet, folk, social, modern, and jazz. Most of these examples combine locomotor movement with objects or other kinds of movement.

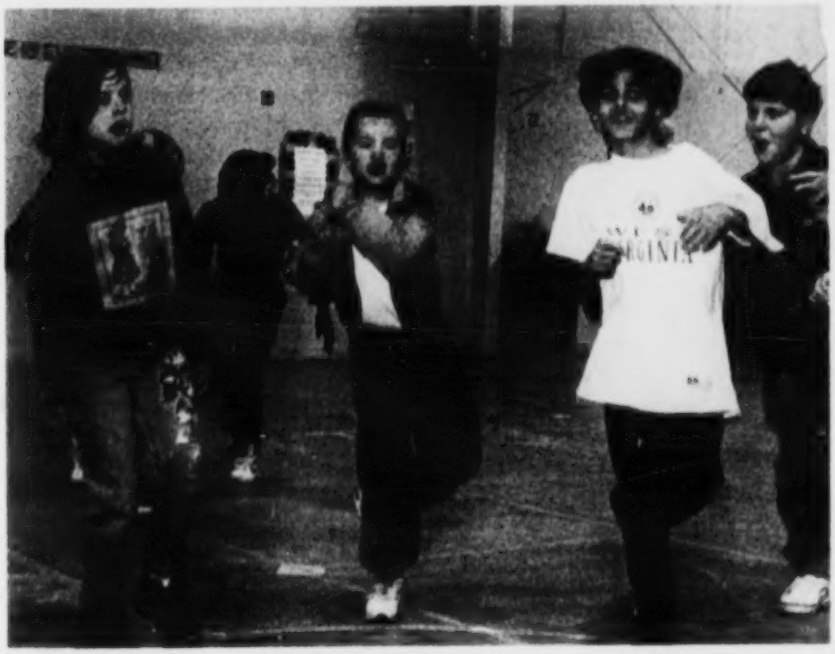
Some of the ways that the key experience of *moving in locomotor ways* is combined with objects and other kinds of movement will become obvious as you read, in the remainder of this chapter, about the next two key experiences that are part of *enabling the learner.* In Chapter 6, you will learn how steady beat and basic timing relate to *moving in locomotor ways.*

5.20

Exploring Combinations

Combining space and time awareness. Mrs. Murphy's second-grade students have cards naming various locomotor movements and have placed them face down. Jesse picks one of the cards to determine what movement the students will explore by using different extensions. The card he picks says "skip," so the children begin to skip in various ways. Jesse decides to skip forward and describes what he is doing. Amanda says that she is also skipping forward, but with large skips. Brent tries using large skips with intensity. Growing excited about all the possibilities, the students decide to skip forward counterclockwise around the room. They add time awareness when they decide to skip slowly at first and then to skip gradually faster and faster. After skipping, they continue by drawing other locomotor movement cards.

Combining locomotor sequences. A third-grade class is combining locomotor movements into patterns. Louis runs several steps and then jumps once. Other students run and then leap, or run and then hop, and so on. Their teacher, Mr. Collins, asks them if they would like to try putting together the "triple jump." This special jump adds to the running approach one hop, one step, and then one jump. The students first practice the HOP, STEP, JUMP with learner SAY & DO several times in their own timing. Then they precede these three movements with four running steps—RUN, RUN, RUN, RUN, HOP, STEP, JUMP, continuing to use the learner SAY & DO. Those having difficulty try only one running step before the hop, doing the hop on the same foot. Then they are able to proceed to using several running steps. The students' enjoyment of this sequence prompts them to put together other movement patterns.

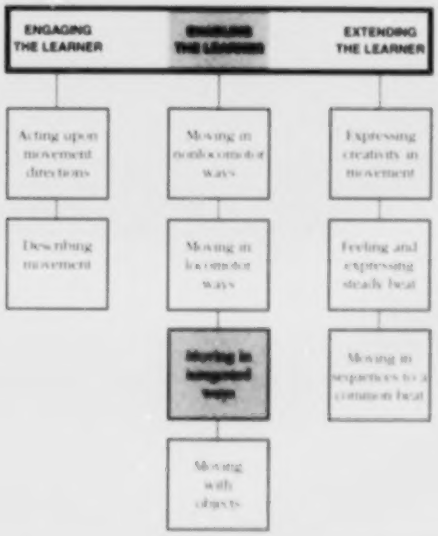


Students practice "HOP, STEP, JUMP" with learner SAY & DO as they prepare to put together the "triple jump." They are working in personal space in their own timing.

O━ Moving in Integrated Ways (Insert 5.21)

Enabling the learner in movement should most certainly include a very common form of movement that people perform. Much of the enjoyable or useful movement that we do in everyday life is not simply locomotor or nonlocomotor. Neither does it involve only one area of the body, such as the legs, or the hands, or the arms, or the head. In particular, most games, sports, exercise, or dance routines require **combining movement of different areas of the body and/or combining locomotor and nonlocomotor movement.** This is **integrated movement.** Because it involves using different areas of the body at the same time, and often nonlocomotor movement in the upper body at the same time as locomotor movement in the lower body, the key experience of *moving in integrated ways* is understandably more complex than the two key experiences discussed so far in this chapter.

5.21
Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

While integrated movement, like the simpler kinds of movement, requires strength, balance, coordination, and basic timing, the demands on students' coordination and basic timing are often the most noticeable. Students who have achieved the observable outcomes of *moving in nonlocomotor ways* and *moving in locomotor ways*—comfort with and awareness of anchored and nonanchored movement, in addition to adequate strength, balance, coordination, and timing for those types of movement—are ready to try "putting it all together." They are ready to develop the even greater coordination and timing involved in *moving in integrated ways.*

What Is Integrated Movement?

According to the definition at the beginning of this chapter (see p. 88), integrated movement not only involves two different areas of the body moving at the same time, but that movement must be *purposeful.* This means that it is movement according to plan—conscious movement. Falling down a stairs with arms and legs flailing, while it involves movement of several parts of the body, is not purposeful movement. Neither is making a mad dash to catch a bus—where the mind focuses on the departing bus but not on the running and arm waving that one is doing. Performing an aerobic routine involving upper- and lower-body movement *is* purposeful movement involving two areas of the body. An example of such a routine would be doing a KICK, STEP, KICK, STEP with the legs (which combines a nonlocomotor kick with a locomotor step) while doing an arm routine; the arm routine might involve pushing both arms up while kicking, and then bending elbows to return the hands to shoulder level when stepping.

Many of the movements that children make while playing involve different areas of the body—there are times when their whole body seems to move at once. But these are often movements that are done unconsciously, and therefore they are not included in what we define as integrated movement. If a young child marches to music while clapping hands to the beat of the music, or if an older child does jumping jacks or plays the piano while using a foot pedal, those are integrated movements.

Integrated movement can be performed in any position. If students are lying down and synchronizing arms and legs in exercise, they are performing integrated movement. If they are seated and moving, arms, trunk, and head together purposefully, the movement is integrated. Cross-country skiing, dancing, and swimming all are integrated movements. Almost all of the sport skills students learn are integrated movements. Playing a drum set is an integrated movement. As students get older, such activities as marching band and show choir require comfort with *moving in integrated* ways. Obviously, from the examples we have given, integrated movement can involve much exactness and require precise coordination.

Two terms defined at the beginning of this chapter (p. 88) come into play in discussing integrated movement:

- If the integrated movement involves different areas of the body moving (e.g., an arm and a leg) *on the same side of the body,* it is **ipsilateral integrated movement.** An example would be the right hand patting the right knee as the leg is raised.
- If the integrated movement involves different areas of the body moving (e.g., an arm and a leg) *on opposite sides of the body,* it is **contralateral integrated movement.** An example would be the right arm swinging forward when the left leg is kicking—so not only different areas but also opposite sides are united in movement.

Crawling in which an infant moves the opposing arm and leg at one time is an extremely important

When integrated movement involves the upper and lower body and different sides of the body, it is called contralateral. These students demonstrate contralateral integrated movement that consists of raising one arm and the opposite leg.

beginning contralateral movement. Some children never develop contralateral crawling if they are put into walkers and not permitted to spend sufficient time moving around "on all fours." As these infants mature, they usually have difficulty with integrated movement.

These kindergarten children spend time crawling, *which in the course of human development precedes the ability to perform integrated movement while standing.*

When Are Students Ready for Integrated Movement?

Students should not be expected to handle integrated movement, with some mastery, until second grade or later. Some children who have had abundant natural play experiences are ready before this age, but many others are not sufficiently mature in their motor development. Because of the wide range of developmental levels within most first-grade classes, it is best to wait to introduce *moving in integrated ways* until second grade. Two somewhat advanced abilities, in particular, are required of students attempting integrated movement:

Ability to inhibit movement. Ability to hold one side of the body still while the other side performs a movement or movement sequence is called *ability to inhibit* movement. For example, holding one hand still while the other hand claps on it (a mature way to applaud), is not possible for a child who is not yet able to inhibit one hand from moving while the other moves. Thus, young children's first clapping is by moving both hands together, in a patty-cake fashion. For this same reason (lack of ability to inhibit movement), it is difficult for a very young child to hold something (e.g., a drum or triangle) fixed with one hand while hitting or striking or beating it with the other; banging two objects (pot lids, or cymbals) together or shaking two maracas is easier.

When doing an alternating sequence of movements, a student who lacks ability to inhibit finds it difficult, for example, to straighten and then bend one arm, and then straighten and bend the other arm. Instead, the student begins moving the second arm before the first arm is finished with its movement sequence. However, when children approach age 7 having participated earlier in many varied movement experiences, their ability to inhibit movement most likely will develop quickly.

Ability to combine two concepts. This might be roughly described as "doing two different things at the same time." As children approach the age of 7, they are usually ready to unite two movement concepts or to unite a concept related to motor ability with a concept related to some other kind of ability. For example, doing two purposeful movements involving two different areas of the body (integrated movement) should be possible; an example of this would be jumping jacks (see p. 123), which means moving arms and legs differently but simultaneously. Thinking about a movement and also about the concepts of right and left side of the body or mirroring should also be possible; an example of this would be patting a specific knee (right or left) with a specific hand (right or left) in an alternating movement. Another concept-combining ability that emerges is the ability to perform a movement and use learner SAY & DO for the number of times it is performed—realizing, without counting, that one is jumping four times, or six times, for example ("JUMP, JUMP, JUMP, JUMP").

In other words, when students, at about 7 years of age, have moved from the preoperational stage to the concrete operational stage of development (see Insert 5.22), they can be successful in *moving in integrated ways*. The fact that the concrete operational student is ready to follow rules is significant here, because the precision and coordination required by most integrated movement, the consciousness of how one is moving, requires being able to follow a sort of mental rule as one moves.

5.22

Stages in Development of Children's Thinking

The psychologist Jean Piaget has described many of the intellectual changes children go through as they develop. From a Piagetian perspective, most K–3 children are passing through three consecutive developmental levels: ***preoperational*** (intuitive thinking), ***early concrete operational***, and ***late concrete operational***. A fourth level, ***formal operational*** (abstract thinking), which is usually not reached until the preteen or early teen years, will not be discussed here.

The preoperational level is the stage at which children's thinking is intuitive. Children at this level draw conclusions or plan their actions on the basis of immediate physical impressions. They need to try an action themselves or see it several times before they see the consequences of the action. First grade is considered a period of transition between the preoperational stage of learning and the stages that follow.

The early concrete operational level is the stage at which children begin to be able to manipulate things mentally, as long as they can also fall back on concrete experiences. They may be able to think abstractly about a problem but need to have concrete experiences along the way to help them in their thinking.

The late concrete operational level is the stage when students' manipulations are more varied and complex. This stage is when they can begin to understand the concepts that underlie movement experiences. Students in grades 2 and 3 are usually going through the early and late concrete operational stages.

Please note, however, that although having reached the age of 7 may be sufficient for handling integrated movement, it is not necessarily so. Students' motor development does not always keep pace with their chronological age and cognitive development, particularly if they have insufficient opportunity to engage in natural large-muscle and small-muscle play. In working with older elementary students and teenagers over a period of 30 years or more, we have noticed an increasing incidence of awkward and underdeveloped balance, coordination, and basic timing. More and more young people lack the space awareness, comfort with movement, and ability to inhibit movement that normally go with their chronological age. Therefore, there is no magic in reaching 7 years of age. Young people of any age can benefit from even the early steps of the *education through movement* approach on which this book is based. *Building the foundation* should be an ongoing process, in the classroom, in the music room, and on the field or court. Mastering integrated movement is something that everyone works at, from the time it is first presented to them in childhood through the many encounters they have with it throughout life—learning to ride a bicycle, swim, ski, play the drums, dance, and so on.

Presenting Integrated Movement

In explaining how to present integrated movement, we will concentrate on purposeful movement that integrates arm and leg patterns. Two ways that this kind of integrated movement can be presented are these:

Method 1: Layering. The most common method for integrating movement is by *layering*, which means first establishing the movement sequence of the legs and then simply adding the movement sequence of the arms to it, without teaching the arm movement as a separate movement. This method is based on the fact that nonlocomotor movement (the arms) is generally easier than locomotor movement (the legs) and therefore can easily be added, once the more difficult movement has been initiated or perfected. For example, the weight transfers (foot patterns) of a dance are more difficult to learn than the arm movements, which add style to the dance. Therefore, we usually teach the dance steps first, and dancers can then add simple arm movements. In this method of layering, the arm sequence is not taught as a separate skill, with emphasis on arm movements alone.

Students are learning to layer an upper-body movement onto another movement. First they start galloping, then they add a pushing movement with the arms.

A dance, for example, might contain a "SIDE, CLOSE, SIDE, CLOSE" pattern of the feet, as the dancer moves sideward around the room. After practicing and mastering that, it is usually easy for the dancer to layer onto the foot pattern a pat, clap of the hands. (The hand movement is not taught alone, and it is not spoken; instead, it is added to the SAY & DO of the foot pattern.)

Layering is often an effective way to establish an aerobic routine. The followers perform more accurately initially if the leader drops both arms and does only the leg pattern alone. Then, while continuing the leg pattern, the leader layers the arm pattern onto the legs. This strategy allows the followers to concentrate on the more difficult leg pattern before adding the rest of the integrated arm-leg movement. While practicing the leg pattern, it can also be helpful to hold both arms in a beginning static position (e.g., with both hands on the shoulders). Using this "ready" position for the arm movement makes it even easier to layer the arm movement on when the time comes. Once the arm and leg patterns are on muscle memory, layering is no longer necessary when beginning the aerobic routine—arms and legs can begin moving at once.

Occasionally the arm pattern may be more complex than the foot pattern of a routine. An example might be performing a musical conducting pattern with the arms while walking forward. In this case, it is better to reverse the layering. Establish the arm pattern, then layer on the foot pattern. When both patterns are complex or difficult to master, layering may not be the best approach to introducing the integrated movement (see Method 2).

Elementary school students, beginning in second grade, enjoy being leaders for the whole class, or for their partners, in demonstrating a routine by layering. For example, a student might lead by beginning a foot pattern such as "SIDE, BACK" (two steps, or locomotor movements) or a foot pattern such as "HEEL, STEP" (a nonlocomotor movement, then a locomotor step). After the followers have the foot pattern established, the leader layers on some arm pattern that he or she has created. Students enjoy having a peer act as leader and seem not at all intimidated by this. When an adult leads a movement, students often worry about whether they are doing it "correctly."

For the teacher, it can be a very humbling experience to have difficulty following an integrated movement led by a student—to experience what it is like to be in the role of learner. It is good for students to hear the teacher say "I had difficulty with Kerry's integrated movement. Did anyone else have difficulty?" This creates an interactive environment where there is no excessive worry about "rights" and "wrongs" and where shared learning is taking place.

Method 2: Teaching with learner SAY & DO. This method makes use of the learner SAY & DO step of the Four-Step Language Process explained in Chapter 4 (p. 82). In this method of presenting an integrated movement, the leg pattern (or more difficult pattern) is presented first, using learner SAY & DO (uniting the movements with appropriate labels).

Once the leg movements are secure, the arm movements are presented visually *and then practiced while saying the labels for the leg movements but not moving the legs*. This establishes a cognitive relationship between the arm and leg movements. When the arm movements have also been mastered, the two areas of the body are united in movement, with the SAY & DO for the leg movements continuing until the integrated movement is on muscle memory. This method can best be understood from the two specific examples that are explained next.

Presenting the integrated movement of jumping jacks. This is an integrated movement that involves a jumping pattern while swinging the arms up and then down. In the jumping, the legs go apart (out to the sides) on the first jump and then back together on the next jump. The arms swing up and down, first stretching straight overhead and then returning to a straight position at the sides. Suggested steps in presenting this integrated movement to students are as follows:

1. Present the "apart, together" leg movement either with verbal directions or with a visual demonstration (which is the **separate** strategy of the "Education Through Movement" Teaching Model). In a **verbal presentation,** you might give two directions that students process one at a time. First say, "Please do one jump and land with your legs apart." Students can process this verbal direction in several different ways. They can land with their two feet apart front to back, side to side, or on a diagonal. The next verbal direction might be, "Now jump and land with your legs close together." Some students might land with their feet crossed, because this is close together. *No individual way that students process these verbal directions is wrong.* The movements can be refined by giving further verbal directions, such as, "Jump with your feet apart side-to-side." "Now jump with your feet together like this"—(demonstrate *after* saying "this"). In a **presentation by demonstration,** you can begin by silently demonstrating two static movements—one jump landing with feet apart (students copy) and then another jump with feet landing together (students copy). Next ask students to identify the placement of the two jumps, and then repeat this jump sequence several times without stopping. If you continue to model the movement, this creates a timing for students to follow, and students who cannot match your timing may become confused and thrown off in their movements.

2. Ask students to suggest labels for the two jumps in the sequence. They may suggest "APART, TOGETHER" or "OUT, IN" or "FAR, NEAR." They each use their preferred labels while doing the jumps, thereby creating learner SAY & DO. The cognitive-motor link has been established, and all students then proceed to jump, each to his or her individual timing, saying "OUT, IN" (for example).

3. Ask students to work individually to create arm patterns that might accompany the jump sequence. After everyone explores arm patterns individually, various students might share their ideas with the class and have everyone try them out. This step in the presentation creates a chance to explore and reach a level of comfort with the idea of arms and legs working together.

4. Present the specific jumping jacks arm pattern either with verbal directions or a visual demonstration (once more using the **separate** strategy). Whether verbally describing the two arm movements (one at a time) or demonstrating them (one static movement at a time), deal only with the arm movements at this point. When the students are comfortable with bringing their arms straight up overhead and returning them to their sides, they can practice executing this sequence repeatedly, each using individual timing. No SAY & DO accompanies the arm pattern

5. Link the arm movements with the SAY & DO for the leg movements. This means having the students do the arm movements while saying "OUT, IN, OUT, IN. . ." (or whatever labels they chose for the leg sequence). Their arms go up with "OUT" and come down with "IN." *The legs are not moving with this step,* but the legs and arms are now *cognitively* linked by the learner SAY &

Older elementary students show two static integrated movements—raising their arms overhead and lowering them. This is a ***simplify*** *strategy for successfully coordinating jumping jacks.*

DO. (Using different arm-sequence labels and leg-sequence labels would only confuse learners, requiring them to simultaneously think of conflicting labels when legs and arms are united.)

6. *Unite the arm and leg sequences.* Students can begin the leg movements, accompanying them with "OUT, IN, OUT, IN." Once the legs

are moving comfortably, they add on the arms, continuing to say "OUT, IN" all the while. Because the arms are used to going up and down with the words "OUT, IN," they automatically move correctly with the leg sequence. Eventually, students might drop the SAY & DO and be able to begin arm and leg movements at the same time when doing jumping jacks.

Presenting the integrated movement "drop kick." Experience with a second-grade soccer team indicates that the drop kick (which combines arms and legs) can be successfully presented to early elementary school children using this approach:

1. *Students first simulate dropping a soccer ball and kicking it, and then actually drop a ball and kick it* . No ball is involved at first. The learner SAY & DO labels to go with this might be "DROP,KICK."
2. *Students then add a third step to the sequence—"STEP/DROP, KICK."* The words "STEP/DROP" are said twice as fast as "KICK." In time with those three words, students take a step, then quickly drop and kick the ball. This use of learner SAY & DO permits success with the movement as action, thought, and language unite.
3. *Students finally add several steps before dropping and kicking the ball.* All sport skills have timing, and the SAY & DO allows students to work on the skill with its timing. Well-coordinated students may not need the SAY & DO, but using this technique helps even the less coordinated students to be successful.

Presenting the integrated movement of playing piano with foot pedal. A piano student learning to play the selection *My Hat, It Has Three Corners* (see Insert 5.23) needs to integrate fine-motor finger movements with pedaling with the right foot. The steps the student goes through are these:

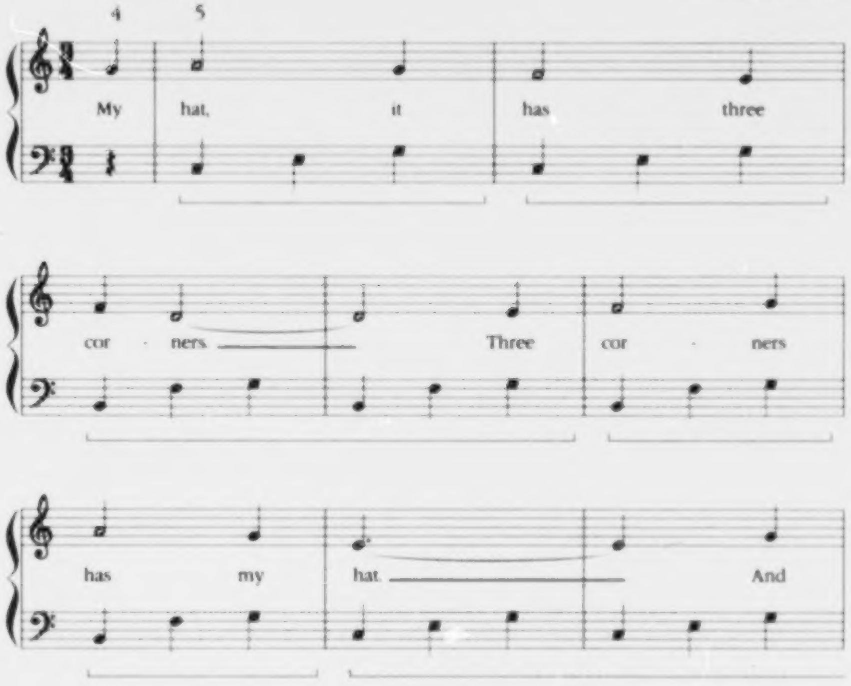
1. *Play the right-hand melody of the first phrase several times until it is secure.*
2. *Add the foot movement, saying "DOWN, UP" as the pedal markings indicate.* Thus, using SAY & DO has combined the foot movement with the right-hand melody movement.
3. *Play the left-hand notes alone.* If needed, the three notes in each measure can be played at one time, to point out the use of the I and V7 chords.
4. *Practice the left-hand notes with the pedal, saying "DOWN, UP" as pedal markings indicate.* This is practiced until it can be done with proficiency.
5. *Play the song with both hands together.* This is practiced slowly, until proficiency is achieved.

5.23

Playing the Piano With Foot Pedal

My Hat, It Has Three Corners

German Folk Song


4
5
My
hat,
it
has
three
cor - ners
Three
cor - ners
has
my
hat.
And

Note: pedal down pedal up

6. *Add the pedal while playing the song with both hands together.* At first, adding the pedal is accompanied with SAY & DO, and then eventually, with THINK & DO.

7. *Proceed with each phrase in the same manner.*

Presenting the integrated movements of folk dance. Folk dances usually have specific arm movements that are united with specific foot patterns. One successful way to present such integrated movements is to SAY the foot pattern while DOING the arm movement.

For example, in the second part of the Israeli dance *Mayim* (RM 5), a hand clap accompanies the dancer's first step away from the center of the circle. Dancers can learn this by first standing in place while saying "IN, 2, 3, 4, OUT, 2, 3, 4." (This is the SAY & DO for walking four steps in and four steps back out.) Then they can add a hand clap each time they say "OUT." When the stepping is added to the learner SAY & DO, the clap on "OUT" becomes automatic.

Another example is the dance *Bannielou Lambaol* (RM 8). There is a specific arm sequence used throughout the dance that can be learned in a similar way. After learning the foot pattern with learner SAY & DO, dancers can do the arm movements without language, while standing still. Then they can add the SAY & DO of the foot pattern to the arm movement. Finally, they can add the arm movement to the foot pattern while using learner SAY & DO. This strategy never fails to lead to success, even for uncoordinated students.

Both the piano example and the folk dance example cited here are appropriate for third grade and above.

Simple-to-Complex Integrated Movements

Certain terms are used to describe the components of integrated movement. Many of these terms are useful in explaining how simple or complex a particular integrated movement is. The important integrated movement terms and their definitions are given in Insert 5.24.

As upper- and lower-body movements are integrated, the following list explains how the integrated movement can follow a progression from simple to more complex. The integrated movement can involve

1. Single recurring movements in both arms and legs (e.g., arms flap and heels bounce).
2. Single alternating movements in the legs (e.g., jogging) with single recurring movements in *both* arms (e.g., pushing).
3. Single alternating movements in the arms and legs, using same-side integration (ipsilateral movement—right arm and right leg). Contralateral movement (right arm and left leg) is more difficult.
4. Sequenced recurring movements of both legs, with single recurring movements of the arms (e.g, feet going apart and together while both hands shake in front of the body).
5. Sequenced recurring movements of both arms and legs (e.g., heels go out and in while bent arms go up and down). Arms working in the *same* plane as the legs is easier than arms working in a *different*

5.24

Terms Used in Describing Integrated Movement

single dynamic One purposeful movement that repeats a number of times, such as flapping the upper arms against the body or bouncing heels. When learner SAY & DO is used, single movements are united with single words—FLAP, FLAP, FLAP, FLAP.

sequenced dynamic Two or more purposeful movements that are united before they are repeated, such as straightening and then bending the arms, or bringing one knee up and then touching the toe to the floor. Sequenced movements are united with two or more words—STRAIGHT, BEND, STRAIGHT, BEND or UP, TOUCH, UP, TOUCH.

recurring movement A single movement or sequenced movement that repeats over and over *in the same way*. An example is one arm or both arms punching in front of the body, or both feet jumping in place. An example of a recurring sequence is both arms repeating the sequence OUT, IN over and over. If one arm is performing the sequence, *recurring* implies the *same* arm is used for each repeat of the sequence.

alternating movement An example of a *single alternating movement* is jogging, or pushing one arm and then the other away from the body: the learner SAY & DO still consists of one word—PUSH, PUSH, PUSH, PUSH—but the arms alternate. An example of a sequenced alternating movement is *one* arm doing UP, DOWN and then the *other* arm doing UP, DOWN when the first arm finishes. The feet might alternate in each doing TOUCH, STEP.

Fifth graders demonstrate performing UP, STEP with the legs. Both hands hit the "UP" knee—which is a ***simplify*** *strategy before using one hand at a time.*

plane (e.g., feet going apart, together sideward while arms straighten and bend in front of the body).

6. Sequenced alternating movements of the legs with single recurring movements of the arms (e.g., legs do KICK, STEP, KICK, STEP while arms PUSH, PUSH, PUSH, PUSH).

7. Sequenced alternating movements of the legs with sequenced recurring movements of the arms (e.g. legs do HEEL, STEP, HEEL, STEP while both arms do UP, DOWN, UP, DOWN).

8. Sequenced alternating movements of the legs with sequenced alternating movements of the arms (e.g., legs do UP, STEP, UP, STEP while each arm follows the plane of the leg in going up and down). Arm and leg on the same side working together (ipsilateral movement) is easier than arm and leg on opposite sides working together (contralateral movement). It would be even more difficult for arms to work in a different plane than the legs are moving in.

There are yet other ways that movements of two areas of the body can be combined, but this list provides a starting point for *enabling the learner through moving in integrated ways.*

Summary of Moving in Integrated Ways (Inset 5.25)

Integrated movement has been described as including the simpler kinds of movement discussed earlier in this chapter—locomotor and nonlocomotor—and uniting two areas of the body. Once comfortable with those simpler movements, students (around age 7) can begin to perform purposeful integrated movement. Their integrated movement, whether it is done while sitting, lying down, or standing, involves coordination of arms and legs, both together, ipsilaterally, or contralaterally.

Two effective methods of presenting integrated movement to students are (1) layering the easier movement onto the more complex or (2) having students use learner SAY & DO to unite the two types of movement before performing them together.

In this section on *moving in integrated ways*, we have drawn on several of the other key experiences in previous chapters and in this chapter. With three of the four broad areas of movement now thoroughly described, one more key experience remains to be explained in our discussion of *enabling the learner.*

5.25

Summary of Moving in Integrated Ways

Observable outcome:

Comfort with and awareness of purposefully combining nonlocomotor and locomotor movements

Concepts included:

Purposeful movements
Two different areas of the body
Single movement integration
Sequenced movement integration
Recurring movement
Alternating movement
Ipsilateral movement
Contralateral movement
Layering
Teaching with learner SAY & DO

O━ Moving With Objects (Insert 5.26)

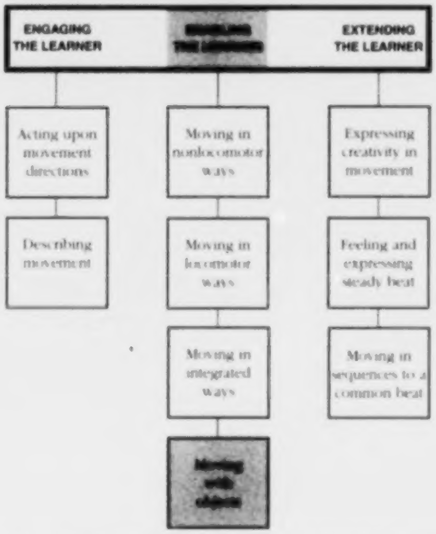
One of the integrated movements discussed earlier was the drop kick, which involved taking several steps, dropping a ball, and then kicking it. Mention of this familiar type of movement leads us to the idea of combining objects with movement—which further enables learners. Objects can be combined with each of the types of movement explained so far—nonlocomotor, locomotor, and integrated.

The key experience *moving with objects* is central to most sports and games. It includes all of the throwing, kicking, dribbling, catching, striking, hitting, serving, returning, volleying, and shooting that characterize the sports or games involving balls, pucks, rackets, bats, sticks, paddles, and so on. But *moving with objects* also includes movement with any hand-held object—not just those used in sports. This means rattles, paintbrushes, batons, musical instruments, beanbags, scarves, to name only a few.

Obviously, such an expansion of the idea of movement involves focusing on new aspects of body, language, space, and time awareness. In connection with this key experience, we will consider a broad range of objects as we discuss developing comfort and awareness in *moving with objects*. Teachers, and children as well, will no doubt be able to think of ways to move with many objects in addition to the ones we describe here.

5.26

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

Movement Development With Objects

Children begin in infancy to move with objects. At first they grasp such things as rattles, shaking them without any particular purpose. Later on they focus on making an object do what they want—making a sound with it, or seeing and hearing it hit the floor as they drop it. A 1-year-old delights in pulling things out of drawers, banging on lids, and making stirring motions with wooden sticks in pots. By moving with objects in this way, infants are able to satisfy their curiosity. They often prompt adults to join them in games involving the objects.

As children enter preschool, they encounter other objects to be manipulated. They build with blocks, paint with brushes, dress dolls, play with sand and clay, push cars and trucks. Some movement with objects develops fine-motor control—sorting small objects, cutting with scissors, fastening with tape. In movement and music activities, they use scarves and paper plates and various rhythm instruments. Outdoors, they move with swings, tricycles, and scooters and climb through tires and over play structures. During all of the movement with objects, adults observe, support, encourage, and guide—rather than teach. They comment and ask questions to stimulate children's body, language, space, and time awareness with relation to using the objects.

It is important that children, before entering kindergarten, have had opportunities like those just described. Learners of all ages, including K–3 children, need occasions to explore new objects and think of ways to use them.

Young children's explorations with objects can provide time for the teacher to observe and evaluate children's various levels of motor development. For example, giving each child in a kindergarten class a large soft ball and then watching what children do with the balls can be instructive. How do they try to toss and catch the balls? Do they try to walk over a ball, sit on it, balance it on their head, or put it on the floor and kick it? The teacher's comments during this exploration can serve to recognize children's ideas and also give other children ideas to explore. Engaging a child to try something another way, as long as the suggestion is not an intrusion, may expand creativity: "Jerome, you're balancing the soft ball on your head. Is there any other way you can balance the ball?"

It is important to realize that the key experience *moving with objects* does not mean just learning and refining specific skills, such as throwing a ball, playing a drum, and so on. It also includes this exploration with objects and opportunity to see object use modeled by peers and adults.

Movement Patterns Using Objects

The remainder of this chapter focuses on these familiar movement patterns, which traditionally use a ball as the object:

throw
strike
kick
catch
dribble

Other, perhaps less familiar types of movement with objects will include

- Fingering a musical instrument and playing rhythm instruments
- Moving with hand-held objects, such as jump-ropes, rhythm sticks, beanbags, paper plates
- Using chairs as an object to move with

Additional objects enter into movement in Chapter 6, when scarves and ribbons are used in the key experience *expressing creativity in movement.*

Though we recognize that many elementary school children also engage in movement with playground and gymnastic equipment, this book will not discuss such equipment. There are many physical education and gymnastics books that deal with this topic in depth.

Using chairs for movement activities often helps older students like these fifth-graders feel less conspicuous. Here, chairs are used for an aerobic activity.

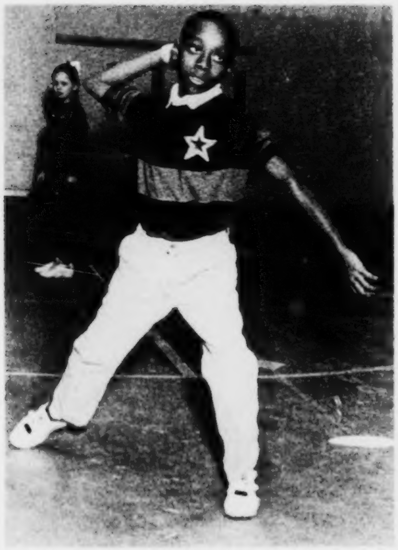
Manipulative Skills With Balls

Handling or manipulating a ball in some way is familiar to most everyone. But comfort and coordination and precise skill in ball handling is not something that comes naturally to everyone. From the time that one first encounters a ball—perhaps as an infant or toddler—through school age and later, manipulative skills with balls are growing, being refined, and developing into mature movement patterns. A learner gradually becomes able to use hands and feet and the whole body, along with visual information, to successfully propel or stop a ball. Various terms are used to describe this propelling and stopping.

Throw. For throwing, the youngest children need to use a ball that can be grasped easily and is not so heavy as to be unwieldy or unsafe. Balloons are sometimes used, but they are difficult to grasp and do not travel well when thrown. Yarn balls are another alternative. Soft 8" or 10" balls made of patchwork material and stuffed with poly-fill material work well; they are washable, too, which is an added benefit. Commercial soft or lightweight plastic balls are also available. Children can also throw small, lightweight objects such as plastic softballs or foam balls.

Throwing is the easiest of the manipulative skills we discuss here. If a young child can release the ball (this indicates a particular developmental stage), then we often see that child holding the ball in one hand and propelling it through space. At first, the child's throwing motion originates from a stationary position. It consists of facing in the direction of the throw and extending the forearm without any trunk rotation. If the child's leg moves, it is generally the leg on the same side as the throwing arm.

Later on, the child will try to throw a greater distance and will begin to use trunk and hip rotation. Finally the child brings forward the leg opposite the throwing arm, and one fluid motion involving arm, trunk, hip, and leg results. For this mature throwing pattern to develop, children need sufficient practice accompanied by encouragement from adults. (Notice that we did not say



Demonstrating a mature throwing pattern without using a ball, this boy brings forward the leg opposite his throwing arm.

"teaching.") Like the other manipulative skills, throwing emerges from much imitation, trial, and error. Adult suggestions such as "Can you throw the ball farther?" are useful. Later on, you might add, "Can you find a different way to throw the ball?" Experimentation, exploration, and support are the keys to the child developing comfort and mature patterns of throwing.

Once the child throws comfortably, it is the time to introduce suggestions about throwing for various distances, at a target, into a basket, over a net, underhand, or to a catcher. Introducing a different object for throwing, such as a Frisbee, poses a different set of challenges. Again, the learner should have time for experimentation, observation, and imitation before trying to develop specific skills (see Insert 5.27).

When elementary school children have not had much prior experience throwing, practice throwing an imaginary object may be helpful to them. If the teacher says, "Let's all pretend to throw a ball as far as we possibly can," it is amazing to watch mature throwing patterns emerge as children try this with no object in hand. When, as in this example, children are given room to grow and when they sense that the teacher is a partner with them in this process, the results can be gratifying.

Kick. Because lower-body control lags behind upper-body control in children's motor development, kicking is more difficult for young children than throwing. At a certain point, however, it is natural for young children to begin to use their feet to move objects in their path. Their first kicking involves a stationary object, and the movement resembles a pushing action with the foot. It almost appears that the act is not a conscious one—that it just happens, usually to the delight of the toddler.

Before any kicking is taught, young children need many informal opportunities to kick a stationary ball with either foot. Gradually, as children use their feet to push rocks, sticks, tin cans, anything they find lying on the ground, the pushing action becomes an action in which the knee bends. The traditional kicking motion emerges.

5.27

Imitation Is the Teacher

When Phyllis's grandson Brian was 2 years old, he watched the teenagers at High/Scope's residential Institute for Ideas as they threw Frisbees to one another. After several days of watching, Brian was seen using the mature initial throwing pattern for the Frisbee, but he didn't release the Frisbee. When an adult noticed his attempts and encouraged him to throw the Frisbee to her, the release occurred. Brian was thrilled to have made this breakthrough!

After this informal kicking experience, more mature patterns develop. Children may take first a single step, and then several steps, as they approach an object with the intention of kicking it. Eventually they use their arms to balance themselves while kicking. Later, children will try to use various parts of their foot to kick, particularly if challenged to do so.

Frequently children today take part in organized sports, such as soccer, at a very young age. Well-meaning coaches may not be aware of the natural progression of the kicking motion that we have just described. Consequently, they may attempt to teach children who have immature basic kicking skills the "correct" ways of propelling the ball in various directions with various parts of the foot. These more advanced skills—dribbling the ball; kicking the ball on the run, to another moving person, with various parts of the foot; propelling the ball with other body parts—should *follow* mastery of the basic kick. Children who are not as advanced in their motor development, who lack the necessary visual tracking and processing skills, find themselves unable to meet team expectations. Criticism from peers and adults can cause them to become embarrassed and to lose interest in the sport.

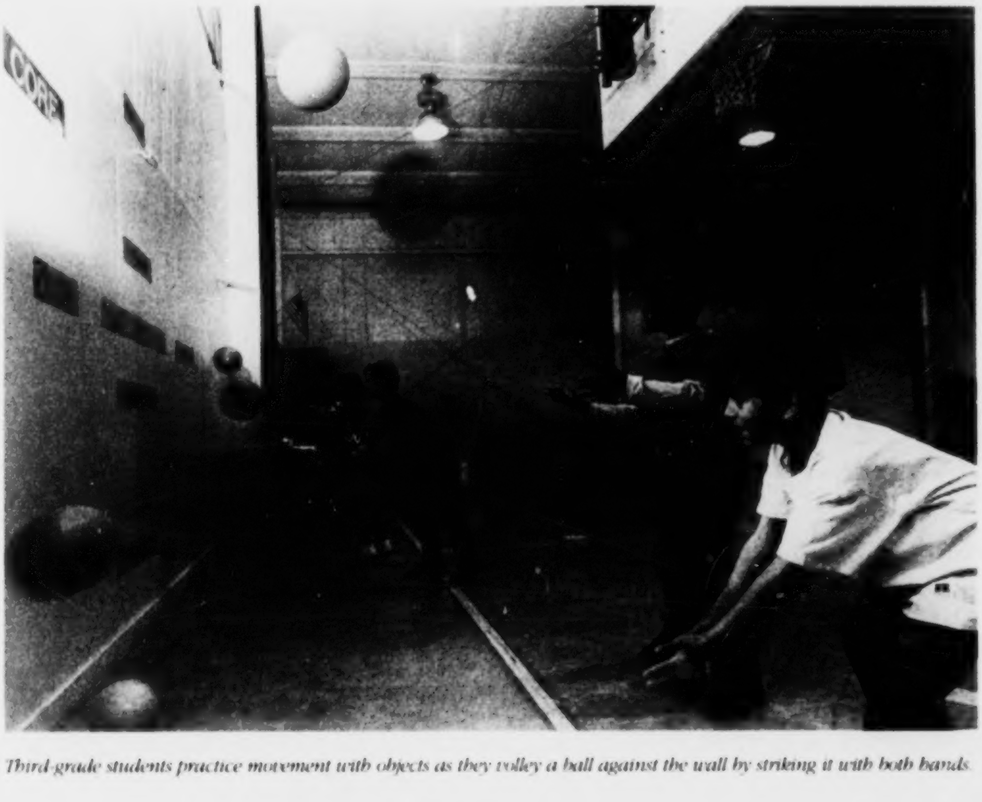
Dribble. Continuous kicking motion that keeps a ball moving but under the control of the kicker is called *dribbling*. A simple form of dribbling is moving a stone along the sidewalk by tapping it over and over with the same foot or with alternating feet. A ball, however, is more difficult to move yet keep under control, because it tends to roll away when force is exerted on it in one direction or the other. Dribbling with the feet requires considerable timing and coordination. Some of the softer types of balls described earlier are useful for developing dribbling skill; they are much easier to control than a playground or soccer ball, for example, and they are safer for young children because they are lighter and do not hurt if they hit another child.

Students practice two kinds of ball dribbling*—with their feet and with their hands*

Dribbling also is the word for moving a ball by continuously pushing it with the hands in a downward direction while in personal space or while walking or running. Dribbling with the hands also demands a great deal of timing and coordination. The arm moves in a fluid way as it pushes the ball down and then rises with the ball to quickly push it again after it bounces up. Students who have *basic timing* are able to achieve this fluid motion (basic timing is explained in Chapter 6 in the discussion of the key experience *feeling and expressing steady beat).* Students without basic timing and coordination may be observed slapping the ball.

Underlying both types of dribbling—with the feet and with the hands—is the ability to independently feel and keep steady beat. As with throwing and simple kicking, children should be given opportunities to imitate and explore the patterns of movement involved in dribbling before trying to refine the movement patterns.

Strike. Another form of *moving with objects* is striking, or batting, a ball. This movement, like kicking, can begin with the ball in a stationary position. For example, young children can begin by simply using their hand to bat at a soft ball hung from above with a string or rope. Then they might progress to using striking implements, beginning with ones that have a short handle and a large, flat striking surface. A paddle-ball paddle or tennis racket with a very



Third-grade students practice movement with objects as they volley a ball against the wall by striking it with both hands short handle works well. A crude bat can be made by inserting a dowel rod into a plastic two-liter drink bottle and securing it with tape. The object to be hit, usually a ball, can be hung or set on a tee at an appropriate height for children's swing. Using the implements described—and using a large enough ball—ensures that most children can swing the implement and successfully contact the ball. When children are ready for a greater challenge, introduce longer handled striking implements, but be sure the hitting surface is still large enough for the ball and the handle is easy for a child's hand to grip. In striking a stationary object, the main challenge for the child consists in accurately judging the distance from his or her hands to the striking surface.

When a person pitches or tosses the ball to be struck, the child's first batting motion will look more like chopping, with the child facing the pitcher and using very little trunk rotation. It takes some time before children naturally turn sideways to carry out a level swing and succeed in striking the tossed ball.

If children have seen other people batting, they often copy the stance they have seen others using. Once again, adults need to play an encouraging and supportive rather than a directive role. Modeling the movement, without forcing correctness on the child, is one way to do this (see Insert 5.28). It is also important to toss the ball to the area where the child is swinging, to allow the child every chance for success. Too many failures will discourage the child from continuing beyond the first few attempts.

5.28

A Frustrated Attempt to Teach

At the beach, a young child and his father were using a bat and ball. The father obviously wanted to teach his son how to bat "correctly." The child, who was at the chopping stage in his batting skill, stood facing his father, waiting for the tossed ball. But before tossing the ball, the father walked over, turned his child sideways, held the bat with him, and took a couple of practice swings. The father then returned to his pitching. While his back was turned, however, his son readjusted his stance to end up again squarely facing his father! Once more the father returned to his son and altered his position. This correction of the child's batting stance occurred three more times, with the father never even getting a chance to toss the ball. Finally, after the fourth correction, the child put down the bat and ran off to play in the sand. Fortunately for the father, some older children, who knew how to bat correctly, then joined him in playing ball.

This father illustrates the typical adult who remembers how someone tried to teach him batting skills when he was young but does *not* remember the informal exploration and experimentation that he probably went through before his skills finally emerged. In learning motor skills, children need time to watch, to explore, and to experiment, free of the "correctness" goal that parents and other adults set for them.

Catch. Another example of *moving with objects* is the skill of catching a ball. The most challenging of the skills with balls, catching demands not only coordination and timing but also accurate visual tracking. Since many children are startled by an object coming toward them, the first exploration of catching should consist of the child tossing an object up in the air and then catching it as it falls. Also, using a scarf or balloon—something with a slow rate of descent—is best for very young children. They can next move on to using a large, soft or lightweight ball, like one of those discussed earlier (catching a heavy ball can injure small fingers).

Some children toss the ball up in a way that makes catching it almost impossible. Those children might need to begin by just tossing the ball up with two hands and tracking it visually as it drops to the floor, saying a word such as "BOOM" or "BOUNCE" when it hits the floor. After doing this many times, they gradually develop some sense of how the ball descends and are then ready to try catching it with both hands as it drops. Eventually they can try tossing with one hand and then with the other hand, still catching with both hands. Later on, with a smaller ball, catching with one hand in a glove might be tried.

This visually impaired student is pleased with her own success when she catches a large ball tossed by her partner.

Catching a ball tossed by someone else is more difficult. The catcher's first reaction may be to put both arms out straight—and look away! This is the first stage of developing catching skill. This stage is often followed by using a hugging motion, and then a scooping motion, to gather in or capture the ball. Saying "CATCH" when the ball reaches the hands may help the child to visually track the ball's progress and then attend at the moment the ball needs to be caught. It is helpful to support children's early attempts by a few nonintrusive questions or suggestions: "What will you try next time the ball is tossed?" "Does it help to say 'CATCH' when the ball comes to your hands?" Too-frequent corrections and directions from adults, or coercion to practice catching, can be discouraging for children.

Manipulative Skills With Other Kinds of Objects

Musical instruments are, of course, another kind of object that enters into the key experience *moving with objects*. Some of the musical instruments we discuss here may be more familiar to you than others. There are a few other, nonmusical objects that we also describe here as having potential for use with timed movement. These are only a small selection of the many kinds of objects that can be used in *moving with objects*.

Musical instruments as objects. The easiest and earliest musical instruments that children usually encounter are *rhythm instruments*, which include

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It is important to provide many opportunities for children to explore their own ways of playing musical instruments. The tambourine is one of the easiest instruments for children to explore.

rhythm sticks, tambourines, guiros, hand drums, wood blocks, triangles, and finger cymbals. The important thing is to provide many opportunities for children to explore their own ways of playing the instruments. When a specific way to play a particular instrument requires inhibiting movement (holding one hand still with the instrument while moving the other hand), an intermediate step might be to have children work in pairs. One child holds the instrument while the partner plays it. Then the partners reverse roles. Triangles, wood blocks, and hand drums can be introduced in this way if need be.

The first melodic instruments that children encounter may be the recorder or piano. Fingering *melodic instruments* is a type of *moving with objects* that requires children to have a certain degree of fine-motor development. There are ways to help children develop fingering skills, such as playing fingering games and giving them opportunities to explore a variety of ways to finger an instrument. There are also specific ways to approach fingering for the recorder and the piano (see Insert 5.29 on the next page).

Hand-held objects used for timed movement. Timed movement—movement that involves a steady beat, rhythm, tempo—will be discussed in detail in the next chapter. As you will learn in the following pages, musical instruments are only *some* of the hand-held objects that can be involved in timed movement.

Sticks are a type of object that even kindergartners can use with timed movement. The sticks, which children may use singly or in pairs, may be of any kind (e.g., chopsticks, paper tubes, PVC piping, drum sticks). Rhythm sticks (about 15 inches long and about a half inch in diameter) are commonly used by school children, as are lumee sticks (which are shorter and fatter—about 12 inches long and an inch in diameter). Rhythm sticks usually come in pairs, with one smooth and the other grooved, so they can be used to simulate the guiro sound, which is a scraping sound of one stick crossing

Children take turns acting as leader in small groups for this game of copycat with sticks. Sticks are a type of object that even kindergartners can use with timed movement.

5.29

Concentrating on Fingering

One effective way to allow students of the recorder to work on just the fingering and hand positions for the recorder is this: Use PVC pipe cut into an appropriate length to simulate a recorder, and have students hold the PVC pipe and finger it as though they were fingering the recorder. On this "recorder," they can explore combinations of finger patterns without having to think of all the other skills involved in recorder playing and without being distracted by hearing different sounds. To simulate the holes of the recorder, paste hole-reinforcers (for notebook paper) on the pipe in the appropriate arrangement. When students are confident with a finger pattern and graduate to using the real instrument, they can then give attention to watching, breathing, initiating the tones, and so on.

A similar **simplify** strategy can be applied to learning fingering patterns for the piano. Students can move fingers and combinations of fingers on any flat surface before applying the coordination to the actual keys of the piano. This strategy works for all ages. For example, one accomplished pianist who needed to quickly learn a difficult Bach piece told us that she found it effective to try playing each hand separately on her piano bench or coffee table, to develop the fingering patterns, before going to the piano.

another. Kindergartners are often more successful using the shorter, thicker lumee sticks rather than the longer rhythm sticks.

Sticks can be used in many ways (see Insert 5.30, p. 142). They can be involved in many of the other key experiences discussed throughout this book. Sticks give children an opportunity to develop some of the eye-hand coordination needed in striking an object. As a form of beat-keeping, they can use sticks to tap their body, the floor, or a paper plate serving as a drum. Sticks can also be hit together in beat-keeping movements. Children can also hold sticks while performing nonlocomotor movement with the arms—one stick in each hand for symmetrical movement or alternating movement, or a single stick in one hand for movement on only one side of the body.

Jump-ropes are another hand-held object children commonly use for timed movement. However, turning the rope *and* jumping—the coordination required for this—is usually too difficult for the preoperational child. For today's typical child, turning and jumping the rope at the same time should wait until at least second grade. Even older learners who lack basic timing have difficulty with this motor task. Nevertheless, exploration with jumping rope can occur before second grade; refinement of the skill should wait until children seem ready. Some preliminary jump-rope experiences might be these:

- Jumping over a stationary rope placed on the floor
- Jumping so each jump is of equal duration, i.e., in a timed manner, while saying "JUMP" with each landing
- Jumping, in even timing, over a rope that merely swings back and forth without turning all the way around
- Watching others jump rope and saying "JUMP" to the timing of the jumps
- Jumping a rope turned by two other children

Throughout these experiences, the teacher can observe whether children have the strength, balance, coordination, and basic timing necessary.

For today's typical child, turning and jumping rope at the same time should wait until at least second grade. These children are working with jump-ropes in their own space and at their own timing.

Before introducing a child to jumping and turning *at the same time*, a possible use of the **simplify** strategy would be to have him or her move both arms to simulate turning the rope while jumping and saying "JUMP."

Beanbags are yet another object to use for timed movement. In second grade or later, students can sit close together in a circle and pass beanbags around the circle in timed movement. Before second grade, however, children can engage in activities that will prepare them for this beanbag passing. One activity consists of individual children leading static movements for the group while holding a beanbag in each hand, as suggested in connection with the key experience *acting upon movement directions.*

Exploration with jumping rope can begin before second grade. Kindergarten children, for example, can jump over a stationary rope placed on the floor as a lead-up to turning while jumping their own rope.

5.30

Ancient Stick Dances and Routines

The Maori people of New Zealand use sticks like lummi sticks in stick dances, performing intricate routines with them as they sing. Three basic ways we observed them using the sticks were these:

1. Moving them in patterns through the air
2. Flipping the sticks to oneself
3. Passing the sticks between one's right and left hand

By second grade, children should be able to learn how to pass and flip sticks.

For **flipping,** each hand holds the end of one stick. One or both sticks are flipped a half turn toward one's self. Students can individually explore doing a half flip first with one hand, then with the other hand, and then with both hands. Encourage them to say "FLIP" on the catch, to focus their attention. After this exploration, they can work in this way on establishing a timed pattern together. Begin with only one stick. Say "FLIP, REST, REST, REST" twice, and then add the learner SAY & DO to the flipping action. (The three rests give individuals who drop the stick the opportunity to pick it up before the next flip.) Eventually try to reduce the number of rests between the flips. Older learners needing more of a challenge might try closing their eyes while doing the flip. Once adept at the half flip, students will probably initiate a full flip, and some may even try a double flip.

For **passing,** the sticks are held in the center so they are parallel to the floor. Both sticks are passed at once, going to opposite hands. One stick passes over while the other one passes under. This time, students say "PASS" on the catch. Their two hands stay apart for the catch. They might also try passing the sticks the opposite way so opposite sticks go over and under. Activity 46 in Chapter 7 contains more ideas on flipping and passing.

Native Americans used lummi sticks to create passing patterns in which the sticks are passed to a partner. This use of lummi sticks is more familiar to most people. Two sticks are held perpendicular to the floor and are tossed to the partner. The tossing may be either one-stick-at-a-time, or two-sticks-at-a-time. When two sticks are passed at once, one partner tosses the sticks inside while the other partner tosses the sticks outside. Teenagers and adults in our workshops have enjoyed learning these lummi stick patterns, as well as the Maori stick routines. Many of these older learners have the same successes and difficulties as second- and third-grade children have in learning how to move with sticks—which reinforces our belief that when it comes to *building the foundation,* one can be a "beginner" at any age.

A particularly effective beanbag activity for first-graders is this one: Begin with children paired off, with the partners in each pair facing each other. To simulate the beanbag-passing movement, the partners take turns moving one hand to the floor in front of each other, saying "PASS" as the hand touches the floor. Next, they each do this same movement while holding a beanbag in the moving hand, and they place the beanbag on the floor instead of merely touching the floor at the word "PASS." Next, both partners do this movement with a beanbag. Finally, each child adds a second step—picking up the beanbag the partner has laid down, saying "HOLD" as it is picked up. So a "PASS, HOLD" sequence has been established with each partner. Children may choose their own words to say as they put down and pick up the bag. Also, putting down and picking up the bag may be a two-handed action, rather than a one-handed action. (See Activity 56 in Chapter 7.)

By second grade or later, children should be able to do a similar timed activity in which they sit in a circle and each child passes a beanbag to the next person, using words such as "PASS, TAKE." For a description of this activity, see Activity 69 in Chapter 7. This activity, which can be used with older learners as well, can be made even more enjoyable and challenging by adding chants, songs, or instrumental music.

Two young boys work as partners in a beanbag activity. They copy each other in placing two beanbags on different parts of the body.

Paper plates are one other inexpensive and extremely versatile hand-held object. With a plate held in each hand for sequences of movement, children can explore different places the plates can be hit together like cymbals (overhead, in front, in back, down low, to the side, etc.). They can also think of different ways the plates can be used. One example can be found in Activity 57 in Chapter 7, which describes how they can be used for "plate aerobics." Plates can be used in connection with *acting upon movement directions* as well as with several other key experiences.

Children use learner SAY & DO in a timed activity that involves everyone simultaneously passing a beanbag to the right.

Chairs used as objects for movement. Students in second grade and above often find that using chairs for movement helps them to feel less conspicuous, to keep personal space intact, and to develop balance and coordination.

Students can be seated or can each stand behind a chair to act upon movement directions (as explained in Chapter 4, in connection with the key experience *acting upon movement directions).* Students can also use chairs as they perform fitness routines, move to steady beat, work to perfect coordination, perform movement to illustrate musical form, or engage in creative movement. They can even use chairs for "musical chairs" (see Activity 7 in Chapter 7, in which chairs can be substituted).

Summary of Moving With Objects (Insert 5.31)

You now have some understanding of the four broad areas of movement. The fourth and last area discussed, *moving with objects,* further enables the learner who is already able to move in nonlocomotor, locomotor, and integrated ways. Moving *with objects* usually involves timing—either one's own or the timing of a group or leader. It takes in most of the basic manipulative skills of sports and games as well as the fingering of melodic musical instruments and the movements used with various rhythm instruments. Other hand-held objects—sticks, jump-ropes, beanbags—suggest all kinds of movement possibilities. With all the objects mentioned, having *exploration time* is an important step in achieving mature movement patterns. Many times, simulated movement without the object is an effective lead-in to *moving with objects.*

5.31

Summary of Moving With Objects

Observable outcome:
Comfort with and awareness of combining objects with nonlocomotor, locomotor, and integrated movement

Concepts included:
Patterns without the object
Manipulative skills with balls—throwing, kicking, dribbling, striking, catching
Manipulative skills with other objects—musical instruments, jump-ropes, beanbags, paper plates
Chairs as objects for movement

In this chapter's discussion about *enabling the learner,* we repeatedly mentioned the importance of children having *basic timing.* Next you will see that basic timing is the central concept behind two of the three key experiences presented in the next chapter, "Extending the Learner."

Chapter 6

Extending the Learner

It is the supreme art of the teacher to awaken joy in creative expression and knowledge.

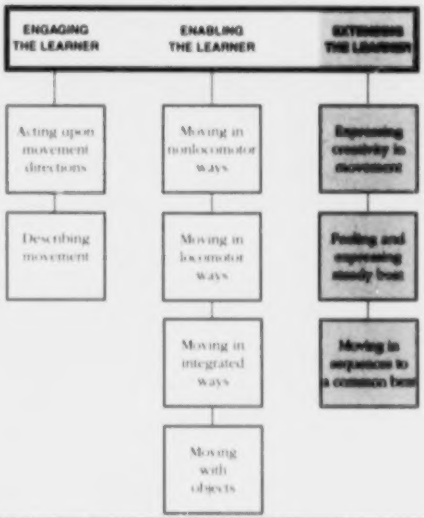
Albert Einstein

Previous chapters have explained the key experiences that first of all *engage* and then *enable* the learner. This chapter includes three key experiences for *extending the learner*—for moving the K–3 child even higher up the ladder to movement proficiency (See Insert 6.1).

The three key experiences in this chapter—*expressing creativity in movement, feeling and expressing steady beat,* and *moving in sequences to a common beat*—build on children's emerging abilities, awareness, and knowledge of movement concepts, challenging them to begin to figure things out for themselves. These key experiences extend children creatively and also rhythmically, as is evidenced by the following observable outcomes:

6.1

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

- Children who express creativity in movement are ones who use their own movement ideas, make decisions about movement, and solve movement problems. They are comfortable with representation and creative expression.
- Children who feel and express steady beat are ones who have **basic timing** and can *keep* the underlying steady beat of a rhyme, song, or recorded or live musical selection in nonlocomotor and locomotor ways.
- Children who move in sequences to a common beat are ones who have **beat coordination** and can successfully sequence movements in steady beat and thus perform action songs and chants, dances, and aerobic routines.

A fuller explanation of what these outcomes mean will unfold as we discuss the three key experiences in depth, one at a time.

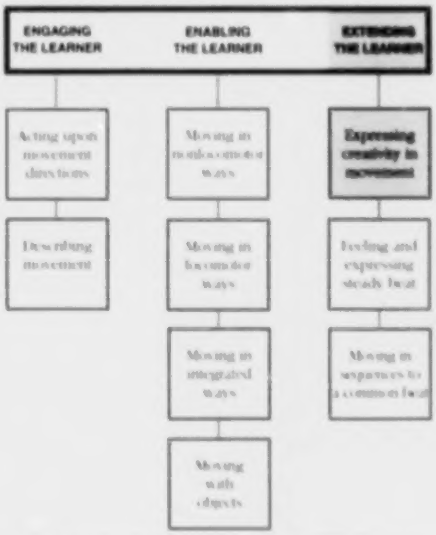
O━ Expressing Creativity in Movement (Insert 6.2)

Promoting creativity in the learner is intrinsic to the "Education Through Movement" program. Teachers using the program's **active learning approach** and **Teaching Model,** as explained in Chapter 2, are the **facilitators** as children explore, plan, make choices, initiate ideas, lead their peers, work cooperatively, and solve problems. Children's own creative ideas are valued and built upon in this process, thus enhancing their lifelong ability to make decisions, solve problems, and express themselves artistically.

Expressing creativity in movement is not a one-time experience. Like creative writing or creative scientific thinking, creative movement cannot be "taught" at a specific time or place. Rather, it evolves over time when students are in the hands of adults who consistently promote and support the kinds of activities described in the preceding paragraph. Emphasis on creativity in movement should not imply a lack of emphasis on mastering movement skills and techniques. There is room for both in a safe, interactive learning environment.

6.2

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

Promoting Movement Creativity

The early elementary years are the ideal time to establish what creativity means and how each person can be creative throughout life. Too often, creative movement is misunderstood and considered as a threatening idea (see Insert 6.3).

Once children have developed comfort and awareness moving in personal and general space, once they have ownership of the concepts embodied in their movement and can extend those concepts, once they have the self-confidence and support to try something different, the road to creativity has been opened. Creative movement then is seen as something inviting and freeing; it means **taking something familiar and changing it in some way.** With regard to that part of movement known as dance, being creative is called choreography. The counterpart in music is improvisation. If children possess a wide range of movement abilities, feel supported, and are intrinsically motivated, then they can start with what they know and understand and use it creatively.

These young children have the self-confidence and support from adults that enables them to try movement in a different way. They are showing how they express silliness in movement.

6.3

Is Creativity Misunderstood?

The word "creativity," as it applies to movement, often intimidates students—particularly those beyond elementary school age. Some people think creativity is something reserved for a special segment of our population—for "artists." Others have had unfortunate experiences with being "creative."

The question we are most often asked in adult movement workshops (which have *not* been advertised as creative movement workshops) is this: "Are you going to ask us to be trees?" If it isn't trees, then it is rocks, or animals, or some other inappropriate thing that they have been asked to imitate with their movements. Lack of age-appropriate creative activities has given creative movement a bad name in the minds of many people.

Creativity should be based on having learner-appropriate topics to represent and problems to solve. We need to ask ourselves this: Are we, the teachers, the ones who are being creative and then imposing our creativity on our students? Is this really engaging *them* in creative movement?

We cannot expect students to suddenly, one day, express creativity if there has been no lead-up through many opportunities to express individual ideas and make choices. To promote the development of creativity, teachers need to be consistently open-minded and supportive of all attempts made by their students. It is especially important to avoid comparing one student's effort to another's or judging a student's creative efforts. Such comments as "Isobel is being so creative!" or "I like the way Kurt is moving around the room" may cause other students to feel that their efforts are not creative or that the teacher does not like what they are doing.

As mentioned in earlier chapters, when using the **separate** strategy of the Teaching Model, giving students verbal directions (rather than demonstrating or giving hands-on guidance) often leaves room for them to be creative. Without a preconceived idea of how a movement looks, each individual can respond to verbal movement directions in his or her own way. Even when demonstrating a movement, you may wish to encourage some creativity with it, however. One way to do this is to preface your demonstration with the words "Here is one idea you might try before you think of other ideas."

Another way to get students started being creative is to say "If you find it difficult to think of an idea, look around and try another child's idea first."

As a way to begin moving with their scarves, children are encouraged to look around and try another child's ideas. Creativity often begins with imitation.

Creativity often begins with imitation. First the child imitates what others are doing. Then he or she thinks of a different way to perform the movement everyone is doing. Watching several children going down a slide on a playground, we often see this happen. At first each child copies the previous child; then someone thinks of a variation, a different way to go down the slide; then several children think of their own variations; and so on.

For some children, moving creatively comes naturally. When doing a movement that others are doing, they may suddenly think of one or more ways to change the movement. A teacher might want to capitalize on such an occurrence with comments that extend their creative ideas or with comments that help the children share their ideas with others, who in turn might think of additional variations.

For some other children, however, creativity does not just happen. We cannot make a child be creative, but we can provide exploratory experiences and guidance that insures safety and builds comfort and self-assurance. We can help each child to understand that his or her movement ideas are valued. We can see that each child receives as broad a range of movement experiences as possible, including all extensions for each type of movement. If we provide children with opportunities to make choices and to share those choices, we establish early on that self-expression and creativity are a natural part of movement.

The Basic Categories of Creative Movement

As we look at ways that children can be creative with movement, we will consider four categories: *problem solving, representing, creativity with hand-held objects,* and *choreography.* The first two of these categories, problem solving and representing, are perhaps the easiest and therefore the most appropriate for the youngest children. Problem solving is a beginning step for older students as well.

Problem solving. This category of creative effort consists of situations in which children are given some, but not all, of the "pieces" of a movement "puzzle" and asked to solve the puzzle. This form of creativity is easy to ask of even kindergartners, if the "missing pieces" are kept to only one or two. Some examples can make this clear:

Kindergartners can be asked to try moving both arms in a swinging motion. The missing pieces might be *where* and *how* the arms will swing. Children show creativity by thinking of various ways to swing their arms—sideward, forward and backward, back and forth overhead, and so on. They might also choose different levels or various intensities for their arm swinging.

The problem posed is this: How many ways can you use a part of your body to hit the balloon in front of you? *As one solution, this girl hits the balloon with her foot.*

Leaving even more room for creativity would be a request to have children do a swinging motion, without stipulating *what body part* should swing. Then children could be creative about (1) *what* to swing, (2) *how* to swing, and (3) *where* to swing.

A movement problem, or puzzle, can be made simpler or more complex merely by varying the number of missing pieces. The possible pieces to leave out are these:

- The *body part* to be moved
- The *type* of movement to do
- The *where* of the movement
- The *how* of the movement
- The body *position* for the movement (if applicable)

As another example, a teacher might pose this problem to a group: Use both arms in a slow bending and straightening movement. In this case, the *body part,* the *type* of movement, and the *how* of the movement are specified. Students can decide *where* to do the movement. Some students may think of bending and straightening their arms out to the side. Others might do it overhead. Others might do it with arms out in front of the body. By following up with other questions, the teacher can ask students how they might change the *body part,* or the *how,* or the *body position,* or the *type of movement:*

- How else might you bend or straighten your arms?
- What other body part could you bend and straighten?
- What other arm movement could you do slowly in front of your body?
- Can you do that movement while you are in another position?

Problem solving is a safe form of creative movement for younger (kindergarten and first-grade) children and for students of any age who may feel uncomfortable or need some structure. Students in the concrete operational stage (around age 7), who like rules, also often enjoy this form of movement puzzle. (See Insert 6.4.).

It is important for the teacher to support students' creative problem-solving efforts and not to judge some of their efforts as "correct" and others as "incorrect." If students are unsure of the "rules," or directions, for a movement problem, the teacher can be ready with an example. One caution about using demonstration to present the problem is this, however: The teacher's demonstration may give some students the idea that a given movement problem has one "correct" response rather than many original, creative responses.

Representing. This form of creative movement, which is a favorite of kindergarten and younger children, involves reenacting familiar actions or happenings or imitating the movements of various living things and creatures. Children might be asked, for example, to move *as if* they were catching soap bubbles or to move *as if* they were flowers opening up or to move *as if* they were cats

6.4

Problem Solving Involving Movement

- In the kindergarten classroom, the teacher has spread small hoops about the space. Each child is invited to find a hoop and to stand inside it. The problem-solving task is to find ways to move out of and back into the hoops. The children don't know what movement to use or "how" to do the movement. Two pieces of this puzzle are missing.

- A first-grade class is working with the concepts of *up* and *down*. Their teacher begins by suggesting that the children find different ways to make their arms go up and down. The missing pieces are the "how" of the movement and the "where" of the movement. The teacher then suggests that the children try making their legs go up and down. Problem solving continues when one child suggests that he can make his whole body go up and down.

- A physical education class of second-grade students is working with the *pathway* extension of locomotor movement. The teacher introduces the problem-solving task by suggesting that the students choose any locomotor movement they wish to use to travel with their body in a straight pathway. The missing piece to this puzzle is the type of locomotor movement.

- Third-grade students have been working with movement concepts in physical education class. Their classroom teacher challenges them to show him how many different ways they can bend and straighten some part of their body. One missing piece is the body part to be used; others are the "how" and "where" of the movement.

It is best if children can base their representing on some concrete experience. Here, kindergarten children represent the movements of animals they saw at the zoo.

sneaking through the woods. (Sometimes, without thinking, we ask children to *be* an animal or a tree or some such thing. Of course, this is an impossible task—children cannot *be* anything but themselves.)

Especially for the young child, it is important that the event or thing or creature to be represented is derived from the child's concrete experience. If this is not possible (or with older children), at least basing the representing on something read about or seen in a movie or on TV is a good idea. Insert 6.5 gives examples of typical representing activities for children.

As children move out of the preoperational stage into the concrete operational stage, their new concern with rules does not permit them to respond as freely to the representing form of creativity. And as learners get older—upper-elementary age, teenage, and adult—their growing self-consciousness can make it increasingly challenging to engage them in representing as a form of creative movement. If learners are only encountering purposeful movement experiences for the first time at one of these later ages, they do not have the positive-experience base that would allow them to fully use their creative-movement potential.

6.5

Some Ways Children Can Represent

- Young childfen enjoy dressing up for representing. One young child, who dressed as a ballerina for Halloween, asked her mother to play music, so she could dance around. Because it was her idea, the dancing went on for a long time. If someone else had suggested that she dance as a ballerina dances, her interest in creative movement might not have been as sustained.
- A kindergarten teacher read *Rosie's Walk* by Pat Hutchins to the children. The children then broke into small groups, each of which acted out one of the concepts in the story—*across, around, over, past, through*, and *under*.
- Third-grade students worked with simple machines. Then they divided into four groups. Each group decided on a machine that they would represent with movement and sounds. As each group represented its machine, the rest of the class tried to guess what machine was being represented.

The secret of engaging learners of any age in representing lies in choosing examples that they have some knowledge of and that are age-appropriate. Whereas moving like animals they saw at the zoo or clouds they see in the sky might appeal to kindergartners, moving like a steam locomotive or a drum major might work for a third-grade student who has seen either of these in action. With teenagers, asking them to move as if they are store mannequins or robots can seem intriguing—what teenager does not shop or is not interested in robotics? Asking them to represent the images in poetry or a song is also effective. For adults, asking them to move as if they are puppets or as if they are in a particular mood may be an effective strategy.

When children are engaged in representing, the teacher's role is not only to support but also to extend their representing by asking them questions that call attention to what their bodies are doing: "Sue, you are moving like the fireman we saw at the fire station. How are your arms moving?" "Nathan, you seem to be copying Jimmy, who has his leg in a cast. How are you doing that leg movement?" Engaging children in this way, encouraging them to talk about their representing, helps to further develop their movement vocabulary and to make movement conscious. With older learners, talking about their representing can become even more complex, as they explain how their movement represents a particular idea or topic (see Insert 6.6).

Creativity with hand-held objects. Adding hand-held objects to creative movement is a strategy that allows some students to be successful in being creative. Older learners, in particular, report that they do not feel as inhibited, or are not as self-conscious, when they accompany their movements with an object. Objects can accompany nonlocomotor, locomotor, or integrated movement.

A number of objects are suitable for creative movement. Paper plates, balloons, ribbons, and colorful scarves are but a few of the ones that are easy to access. Students can, for example, move creatively while holding a scarf in one hand or a scarf in each hand and listening to a slow instrumental selection such as *Mindrele* (CD5). At first the movement might be in personal space, and then as students gain confidence, it can move to general space.

Especially for older students, moving creatively with objects often goes better if they move as partners or in a small group. When students interact in this way, each person is still creating his or her own movement while also responding to the spaces created by others. During this interaction, it is a good idea for the teacher to also join in, moving among the students, to give them less of a feeling of being observed. Feeling that one is "on display" often hinders creativity.

6.6

Representing—Teen-Style

When working with teenagers, representing can become quite complex, combining movement, music, and sounds. The teenagers' explanations of their representing efforts can be equally complex. As an example, a group of teenagers at the High/Scope Institute for Ideas decided to represent this haiku:

> *Evening descending*
> *Over the shadowed forest*
> *Thoughts harbored to rest.*
>
> *Dreams recall moments*
> *'Till the morn of the new day*
> *Until then—farewell.*

Their final presentation was most creative, a result of the supportive, interactive environment of the Institute.

Lying down and listening to music, children begin moving their scarves in creative ways. As they feel comfortable doing so, they will assume different positions for this creative movement with objects.

Choreography. The form of creative movement that sequences patterns of movement into a completed dance or routine is *choreography*. While second-grade and older elementary school students can begin to choreograph simple dances and routines, this form of creative movement is not just for elementary school students. It also produces the types of routines used by flag corps, marching bands, drill teams, cheerleaders, show choirs, aerobics classes, and dance troupes. Usually choreographic movement involves both the lower and the upper body, so it requires that students be comfortable with integrated movement. Choreography also implies that students have achieved *basic timing* and *beat coordination,* which will be explained in connection with the next two key experiences in this chapter.

Three fifth-grade students demonstrate their choreography for other members of the class to try. With one foot, the students sequence "HEEL, STEP" as they do "OUT, IN" with the opposite arm.

As first mentioned in Chapter 4, planning a sequence of movements to make up a dance or other movement routine is easiest if a consistent language is used to refer to the various movements. Insert 6.7 shows the Language-to-Dance Vocabulary that we developed for teaching international folk dance. It is also a very helpful vocabulary to use in choreographing the other kinds of movement routines mentioned in the previous paragraph. The basic movement language is the same for both dances and routines; it is the music, style, and purpose that differentiates one routine or dance from another.

6.7

Language-to-Dance Vocabulary

Locomotor words (one word equals one transfer of weight):

forward, backward Moving one behind the other around the circle or in a line

in, out Moving toward and away from the center of the circle

side Moving sideward while facing center

back Crossing behind

cross Crossing in front

close Stepping next to the foot that has moved side, or in, or forward

turn Turning the body on the step to face a different direction

step A transfer of weight in place

accent A step with intensity

Nonlocomotor words (one word equals one motion):

touch A motion of the foot executed anywhere around the body

heel, toe A specific motion placing the heel/toe on the floor

kick A motion that straightens the moving leg

lift A motion in which the moving leg remains bent

up A motion in which the knee moves straight up in front of the body

stamp A touch with intensity

Choreographing dances and routines is made easy by the Language-to-Dance Vocabulary, which supplies all the nonlocomotor and locomotor directions for the space used and for the timing of each movement. Students in the concrete operational stage like to use this vocabulary, because they see it as applying "rules" to their creative efforts. Older students also are able to use this vocabulary to help them be creative in a choreographic way. In fact, choreography often seems more concrete and therefore less threatening to them than the problem-solving and representing forms of creativity. The results—the dances and routines—that students of all ages produce by using the Language-to-Dance Vocabulary are most amazing.

Summary of Expressing Creativity in Movement (Insert 6.8)

Promoting **creativity** with movement—**the ability to take something familiar and change it in some way**—is intrinsic to *education through movement.* Creativity is a natural result when teachers **facilitate** children's exploration, choices, initiation of ideas, leadership, cooperation, and problem solving. We have considered four forms that creative movement can take: *problem solving* (in which children are given a movement "puzzle" with one or more "missing pieces"); *representing* (in which students represent, or reenact, movement of someone or something that they have seen or experienced); *choreography* (in which children sequence patterns of movement into dances or other rhythmic routines); and *creativity with hand-held objects.* Two of these, problem solving and representing, are particularly successful with younger children.

6.8

Summary of Expressing Creativity in Movement

Observable outcome

Extending movement by using one's own ideas

Concepts included

Verbal directions
Facilitate in the Teaching Model
Choices by learners
Problem solving
Representing
Creativity with hand-held objects
Choreography

For any form of *expressing creativity in movement,* the essential ingredients for success are these:

- Supportive teachers and peers who recognize students for their creative efforts
- An absence of judgmental comments that lead students to compare themselves with one another or to try to be "correct"
- Opportunity for students to begin creative efforts with imitation and to gradually branch out with original ideas
- Absence of demonstration that might imply a "correct" way to approach a problem
- Opportunity for students to interact and share by working in pairs or small groups
- Techniques and suggestions that are age-appropriate and that make students feel unobserved and less self-conscious

Expressing creativity in movement obviously builds on each of the key experiences considered in earlier chapters. As the rest of this chapter will show, it can also involve *feeling and expressing steady beat,* and *moving in sequences to a common beat.*

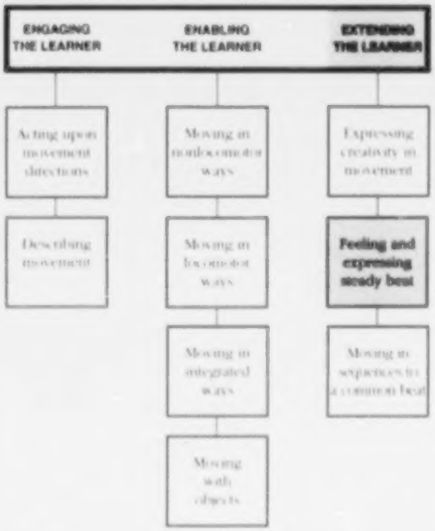
O━ Feeling and Expressing Steady Beat (Insert 6.9)

The movement key experience *feeling and expressing steady beat* is fundamental to both movement and music. It is, in fact, included among the music key experiences that are explained in *Foundations in Elementary Education: Music*.

Being able to feel, express, and then keep steady beat—the ability that we call *basic timing*—is one of the important prerequisites for early success in education. A learner with basic timing is able to *independently identify* (feel) a steady beat; *express* the beat with nonlocomotor and locomotor movement; and *keep* the beat throughout any rhyme, song, or recorded or live musical selection. Basic timing prepares the student to function throughout the curriculum; it affects motor skills, sports skills, musical performance, speech-flow, reading comprehension, performance of timed tasks, and organization of one's time. It is one of the most primitive and yet the most overlooked of foundational abilities. It involves responding both cognitively and kinesthetically to aural and visual stimuli to bring refinement and synthesis to a task.

6.9

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
EXTENDING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat
Moving in sequences to a common beat

What Is Steady Beat?

Steady beat is the consistent, repetitive pulse that lies within every rhyme, song, or musical selection. This pulse has even durations, occurs at equal intervals, and can be either fast or slow. As we will later explain, steady beat needs to be felt before rhythms can be precise.

In rhymes, songs, and musical selections, we refer to the steady beat as *microbeat* and *macrobeat*, which are terms used by Dr. Edwin Gordon, a highly respected music learning theorist.[1] To clarify these terms, we will consider two examples of steady beat—one involving a rhyme and one involving a song.

Children just learning beat-keeping will often try walking to a steady beat. Here, children walk to the steady beat of a rhyme the teacher is reciting.

8

In the following well-known rhyme, certain syllables are underlined to indicate where one can feel a steady beat occurring:

Humpty Dumpty sat on a wall.
Humpty Dumpty had a great fall.
All the king's horses and all the king's men
Couldn't put Humpty together again.

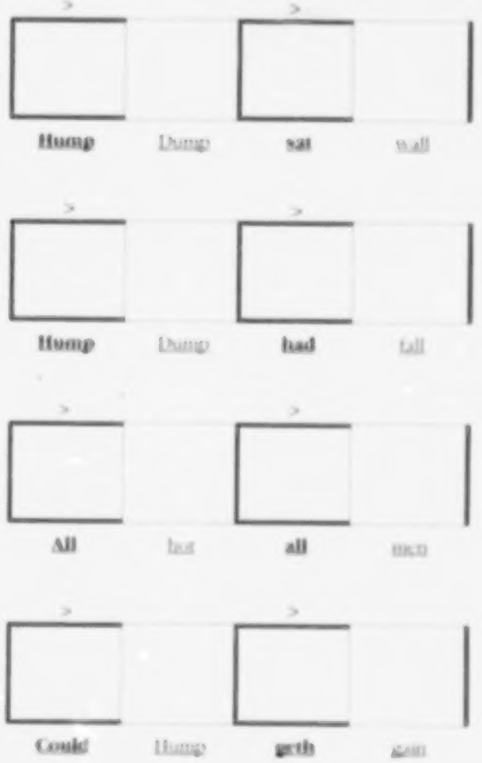
When children are learning to keep steady beat, they will often try walking to a steady beat such as the one shown by the underlining in the "Humpty Dumpty" rhyme. They take a step for each underlined syllable as the rhyme is recited. This steady beat is the **microbeat** of "Humpty Dumpty."

Dr. Gordon points out that in any rhyme, song, or musical selection, there is another, organizational steady beat called the **macrobeat.** This macrobeat organizes groups of two or three microbeats. It coincides with the first beat in each group of two or three microbeats. For example, in "Humpty Dumpty," this macrobeat organizes groups of two microbeats. To indicate where the macrobeat occurs, certain underlined syllables of "Humpty Dumpty" are now shown in boldface:

Humpty Dumpty **sat** on a wall.
Humpty Dumpty **had** a great fall.
All the king's horses and **all** the
king's men
Couldn't put Humpty to**geth**er
again.

6.10

Microbeats & Macrobeats of "Humpty Dumpty"



Just as they are eventually able to feel the steady microbeat, children can also learn to feel the steady macrobeat of a rhyme, song, or musical selection. In this book, we use diagrams like the one in Insert 6.10 (for "Humpty Dumpty") to illustrate both concepts of steady beat—the macrobeat and the microbeat of rhymes, songs, and musical selections. The diagram is made up of units called *beat-boxes*, with each beat-box representing a single microbeat. The beat-boxes with darker outlining and a musical accent mark (>) above them represent the macrobeat.

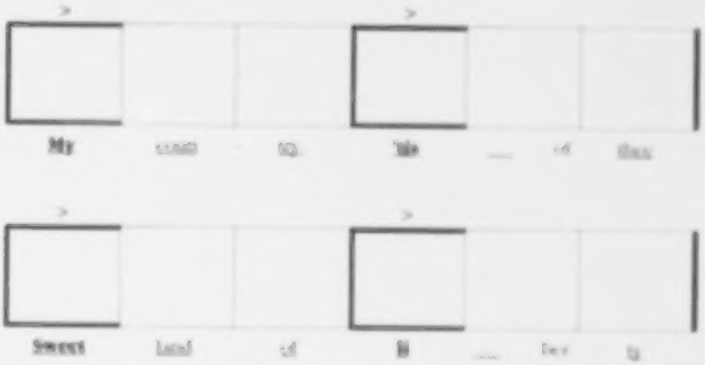
An example of a macrobeat that organizes groups of three microbeats can be found in the familiar song *America*. The beginning of *America* is shown here with the underlining showing syllables on the microbeat; the boldfacing indicates syllables on the macrobeat. (See Insert 6.11 for a beat-box diagram for *America*.)

My coun-try, **'tis** _ of thee,
Sweet land of **li** _ ber-ty, . . .

The diagrams used for Inserts 6.10 and 6.11 show beat-boxes that represent the steady beat of rhymes and songs. In order for microbeat or macrobeat to be felt and expressed, movement is the necessary ingredient. As shown on the next page (Insert 6.12), by putting an "X" in the beat-box, we can represent movement, such as patting the legs or stepping to the beat. An "X" appearing in each box represents microbeat movement. An "X" appearing only in each box with an accent over it represents macrobeat movement.

6.11

Microbeats and Macrobeats of *America*



What Is Rhythm?

When the musical notes and the words of a song are superimposed on the steady beat of the song, **rhythm** results. (Notes placed on the music staff denote a pitch relationship, and each note has a time value. In the following discussion, when we use the word *note*, we will be referring to the time value.) Some notes are of longer duration than others; several different notes may occur within each microbeat. As for the words of the song, some are sung quickly, some slowly; one or more word syllables may occur within a microbeat. Insert 6.13 on the next page illustrates how the notes and words create rhythm within and among the microbeats (shown by underlining) and the macrobeats (shown by boldfacing) of the song *Hot Cross Buns*.

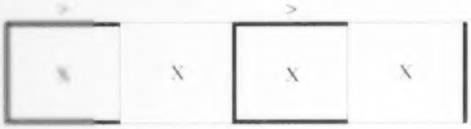
This action of the notes and words within and among the beats is known as the rhythm of the song. Rhythm is the surface action that gives music interest. Many authors of music education books refer to rhythm as the basic element of music, with beat described as a subcategory of that element. They often give little attention to the underlying steady beat, which is the more elemental concept.

6.12

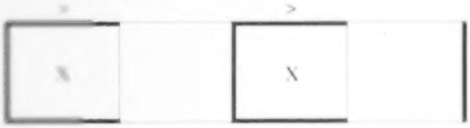
Beats Organized in Twos and Threes

"X" represents movement (patting, stepping) to the steady beat of a rhyme, song, or musical selection.

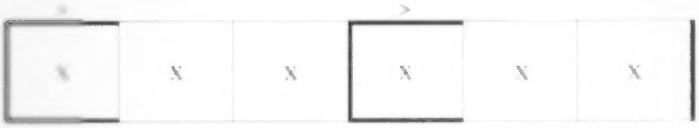
Microbeat—movement to each beat in the group of two beats:



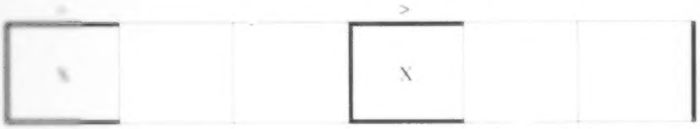
Macrobeat—movement to the first beat in each group of two beats:



Microbeat—movement to each beat in the group of three beats:

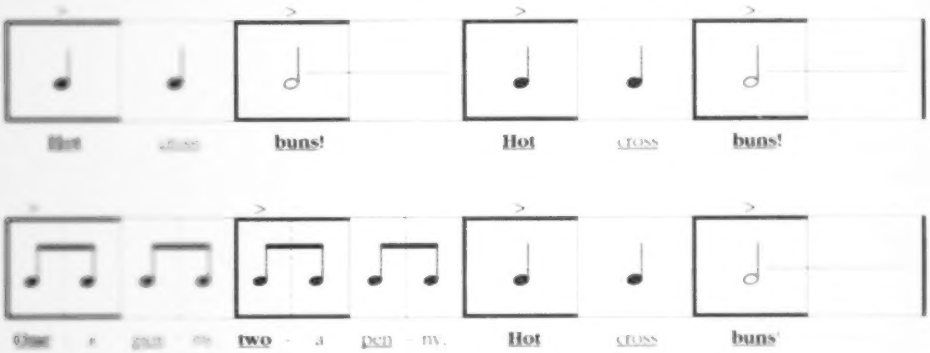


Macrobeat—movement to the first beat in each group of three beats:



6.13

Notes and Words Show Rhythm of the song *Hot Cross Buns*

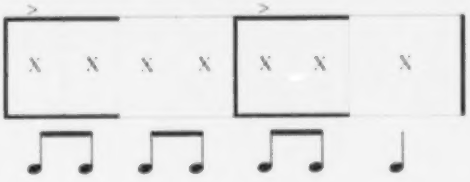

Hot cross buns! Hot cross buns!
One - a - pen - ny, two - a - pen - ny, Hot cross buns!

Learners' ability to *feel* steady beat makes synchronization possible—allowing students to say rhymes; sing songs; and perform music, dance, or other movement routines together. The abstract concept of steady beat underlies any rhythmic pattern. Steady beat is involved in sport and game skills and has connections with language, mathematics, and many fine-motor activities, such as handwriting, weaving, typing, and so on. Successful beat-keeping includes independent ability to consistently *feel, listen, aurally attend,* and *respond in a continuous way* to steady beat. Furthermore, we cannot assume that children (or learners of any age)—as we later explain—bring to music, movement, or any timed task the fully developed ability to *independently* keep steady beat. Therefore, rather than starting students with moving to the rhythms of musical notes or words (Insert 6.14), we need to begin at the beginning—by providing them with experiences in *feeling and expressing steady beat.* In other words, students need to develop *basic timing.*

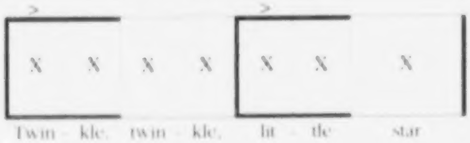
6.14

Movement Response to Rhythms

Movement to rhythm of note values:



Movement to rhythm of the words:



What Is Basic Timing?

Each of us has a natural, internal steady beat. Most of us can perform repeated, evenly timed, steady movement, such as patting our knees or stepping, to our own steady beat. This internal beat may be slow or fast (this is referred to as *tempo*), and the tempo may change from time to time (it is faster, for example, when we are excited, slower when we are tired).

Moving to our own steady beat is one thing; moving to an *external* steady beat—set for us by another person or by a musical recording, etc.—is yet another. The external beat may have a slower or faster tempo than our internal beat. We may need to listen to or perhaps watch another person before responding with movement. What is even more difficult is responding with movement after first *feeling* the beat without the aid of listening to or watching another person. If the external beat happens to correspond to our own internal beat, we will be successful naturally. Otherwise we may not be successful until we have developed **basic timing.**

Children develop basic timing in two stages. **The first stage is beat awareness.** This involves being able to move to their own internal steady beat, to match a steady beat that is spoken verbally or modeled visually by others, and to perform locomotor and nonlocomotor movements to that steady beat. It includes being able to copy a leader's movement to either the microbeat or the macrobeat of a rhyme or musical selection. It includes discovery of the two

6.15

Success With Basic Timing—Real or Apparent?

Adults sometimes think that children have basic timing when they observe them moving to the rhythm of the note values of a musical selection or moving to the rhythm of the words of a rhyme. In fact, the children may be showing only a stimulus-response reaction—not a true feel for steady beat. Moreover, some children may copy others' steady beat but lack *independence* in keeping steady beat. Because children respond so easily to rhythm created by notes and word syllables, we sometimes make the mistake of introducing it to children too early, thus making their success with steady beat, an abstract concept, more difficult. Demonstrating precise rhythms is based on feeling steady beat. Experience with moving to the rhythm of note values and the rhythm of words does not build this ability.

Working in pairs, children take turns leading—usually setting the beat for their partner to follow. In a situation such as this, the follower has to adjust internal beat, making it faster or slower to match the leader.

concepts of steady beat, as children feel and move to either the *microbeat* or the *macrobeat* of a rhyme or musical selection. For example, a child with beat awareness could step to the microbeat of a recorded march when a leader identifies the beat by saying "MARCH, MARCH, MARCH, MARCH." Or that child might pat knees to the macrobeat of the march, once the leader begins patting knees to identify that macrobeat. Notice that beat awareness does *not* include ability to self-identify the microbeat or macrobeat.

The second stage in developing basic timing is beat competence. This means being able to *independently* identify (feel), express, and *keep* either or both microbeat *and* macrobeat with hands as well as feet, using nonlocomotor and locomotor movements. For example, a student with beat competence could listen to a march, independently feel the microbeat *and* macrobeat, and then independently keep beat by either marching to the microbeat or patting shoulders to the macrobeat. (See Insert 6.15.)

A student who has achieved beat awareness and then moved on to achieve beat competence has developed basic timing. (See Insert 6.16.) We often refer to such a person as "timed." Unfortunately, this all-important basic timing—the ability to independently, feel, express, and keep steady beat—does not necessarily come with maturation.

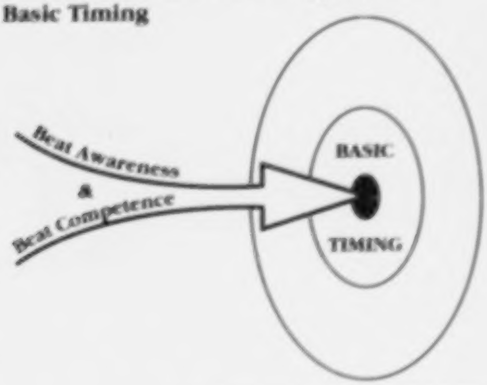
Who Has Basic Timing?

Many children entering elementary school, as well as older children, teens, and adults, lack basic timing. The reasons for this are many.

Sometimes the way a child moves indicates that the child does not even feel a steady internal beat. The child does not pat or pound with a steady

6.16

Beat Awareness & Beat Competence = Basic Timing



Students in a physical education class demonstrate independent beat-keeping as they use a rocking motion to keep the macrobeat of recorded music. Facing away from one another ensures that they are not using visual cues.

motion. When asked to move to a steady beat, the child uses erratic movements or walks in an unbalanced, uncoordinated way. Usually, the speech of such a child lacks clarity and smooth flow. We have encountered a number of preschool children who have not had a timed speech model or a person to rock them and pat them in steady beat during their infant and toddler years. They have not experienced the feeling of steady beat supplied by another person while they listened to rhymes, songs, or recorded music (see Insert 6.17). In other words, they have not developed the *hearing-feeling connection.*

6.17

Greg—A Preschooler Without Steady Beat

An adult riding in a preschool car-pool would often begin rhymes or songs the children had been exposed to in preschool. While doing so, she noticed that 4-year-old Greg seemed to have no sense of steady beat. The adult began using a hands-on guidance method of stimulating Greg in beat. While riding together, they would join little fingers and move their arms back and forth while singing simple songs like *Row, Row, Row Your Boat.* Now, after six months of daily beat-keeping, Greg is just beginning to initiate his own steady beat to which the adult can respond.

Individual testing we did in the early 1980s and then again in the early 1990s with both first-graders and teenagers showed a marked decline over that 10-year period in young peoples' ability to walk to the steady beat of recorded music. (See Appendix C.) The proportion of first-grade children with beat competence dropped from 25 percent to approximately 15 percent. (Kindergarten children were not tested in the early 1980s, but those tested in the 1990s demonstrated only 10 percent success.) Between the two testing periods, teen girls with beat competence dropped from 80 percent to 48 percent, while teen boys with beat competence dropped from 66 percent to 30 percent. (The test we used to measure beat competence is presented in Appendix A.)

In a related collection of data, we found that teenagers who were *unable* to walk to the beat demonstrated only a 15 percent success rate in ability to follow movement sequences presented visually. They demonstrated the same low success rate when acting upon verbal information. In addition, the group of teenagers tested in the early 1990s demonstrated a lack of singing ability. Only 27 percent were able to sing part of a song with correct pitch, having started the song themselves in their own pitch range. This information leads us to suspect a correlation between beat competence and singing in tune.

Since basic timing is a critical component for so many tasks, with statistics like these, it is not surprising that throughout their school careers many children have difficulty in activities and tasks requiring timing. It is also not surprising that adults show a need for developing or improving their basic timing ability (see Insert 6.18).

As mentioned earlier, even among music educators, attention to children's **basic timing**—to their ability to feel, listen, attend, and respond in a consistent way to steady beat—is often lacking. Very few experiences are provided for children to develop ability to feel and express steady beat. Perhaps the fact that so many people are "untimed" is a relatively new phenomenon. People years ago needed fewer school experiences with keeping steady beat, because so many everyday tasks of the home, shop, or farm developed, reinforced, and refined timing ability. Our ancestors pumped water, sharpened knives, pushed carpet sweepers back and forth, hoed the garden, sawed and hammered, pumped the sewing machine, and gathered around the piano to sing. As modern life requires less and less manual work and physical labor, timed experiences are no longer as plentiful as they once were. Yet the need for a sense of timing persists. How can children today develop basic timing, which is the **inner anchor** for personal organization and response?

6.18

A Need for Basic Timing on the Job

The husband of an Endorsed Trainer in the "Education Through Movement" program is a foreman in a factory where workers do timed tasks on an assembly line. He reports that he is able to relate lack of beat-keeping ability to the number of accidents incurred on the assembly line. Workers who are not "timed" themselves have difficulty with tasks involving timing.

The Need for Guidance in the Development of Basic Timing

To develop basic timing, children need the guidance of competent teachers and parents (or caregivers) who provide *many varied experiences* within a safe environment. These adults need to appreciate the value of children becoming secure and proficient in feeling and expressing steady beat.

Unlike rhythm, which involves reading notes or words that one can follow, steady beat is abstract and requires keen listening and feeling to detect. Because keeping steady beat is one of the most fundamental abilities for learners of any age, it needs its own separate identity and task focus. Moving to steady beat should be the *first* thing that a child experiences, and moving to rhythm should follow only after basic timing is secure. Beginning with movement response to rhythm before children can move to steady beat skews the focus (see Insert 6.19).

Guidance leading to beat competence can begin very early indeed. When a pregnant mother sings or listens to music and moves to the beat, the infant in utero also is able to sense or feel the beat. Researchers tell us that the baby hears during the last trimester of pregnancy, so the hearing-feeling connection has already begun before birth.

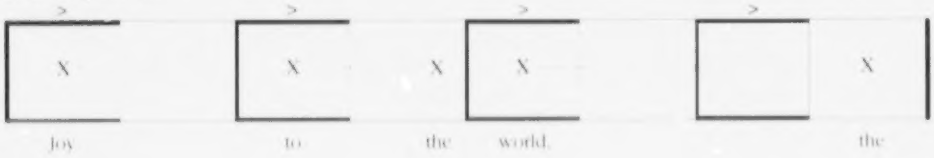
During infancy, when the mother rocks, pats, and strokes her baby to a steady beat, these nurturing actions continue to anchor this all-important con-

6.19

Steady Beat Comes First—*Joy to the World*

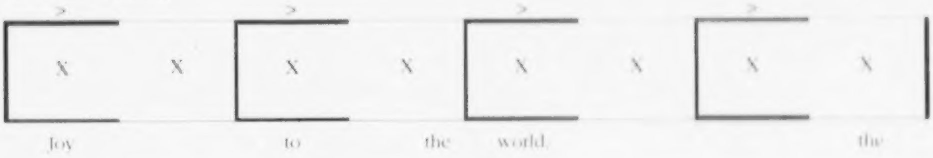
It is an all too common sight to see a parent and young child listening to music, with the parent patting out the ***rhythm*** on the child's knees, hands, back. For example, we saw a mother, who herself had a good sense of steady beat, patting her baby to the ***rhythm*** of *Joy to the World*. This means that she patted one long pat for "Joy," then two short, light pats for "to" and "the," and then a stronger pat for "world," and so on. The beat-box diagram for her patting would look like this (each "X" represents a pat):

Rhythm patting

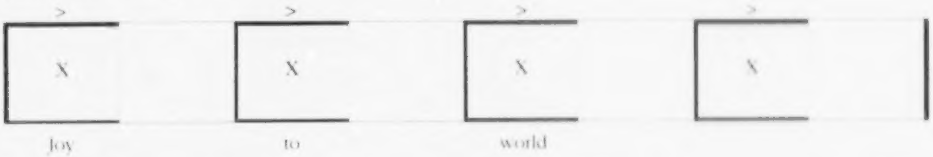


If that same mother had instead patted or rocked the *steady beat* for the song, her patting or rocking would look like this:

Microbeat patting



Macrobeat rocking



Precise rhythm patterns, far more complicated to perform than steady beat, are built on feel of steady beat—which is the first experience a child needs.

Matthew's mother moves his hand in steady beat while she sings to him. Nurturing actions like this begin to anchor the all-important concept of steady beat.

cept—the feeling of a consistent steady beat, or pulse, linked to the rhythm of speech. Throughout infancy and the toddler years, the child's growing strength allows him or her to engage in repetitive, steady-beat movements, such as shaking a rattle, patting the highchair tray, or pounding with a toy. Adults can reinforce this timed movement by saying "PAT, PAT, PAT, PAT" or "BANG, BANG, BANG, BANG" to the steady beat of the child's movement. Bouncing the child on the knee while chanting a rhyme, dancing around the room to music on the stereo while holding the child, or continuing to rock the child while singing a lullaby all enable the parent or caregiver to reinforce the child's feeling for steady beat during the sensorimotor stage of development, which is from birth to age 2 (see Insert 6.20).

Between ages 2 and 4, when children's speech is rapidly developing, consistent beat-keeping experiences are important for developing articulate speech flow. This is when the child needs to experience a great variety of timed movement responses linked to natural speech. This is the process whereby steady beat eventually becomes automatic.

Copying the adult leader, children pound with one hand on one side of the body. Next they will add the word "POUND" to their movement, and then they will try the pounding movement with the other hand.

During the preschool years and kindergarten, children need opportunities to experience a variety of repetitive single movements that lend themselves to beat-keeping: hammering, sawing, pounding, sweeping, marching, jumping, hopping, swinging on a swing, shaking and tapping rhythm instruments. Adults can reinforce any of these child-initiated steady-beat actions by saying "TAP, TAP, TAP, TAP" or "STEP, STEP, STEP, STEP" in time to the child's movement.

The child who has an abundance of experiences like those just described will be secure with steady beat before entering kindergarten. In fact, a child should demonstrate ability to feel and express steady beat by age 3. Kindergartners who have ownership of steady beat are able to feel and show steady beat by keeping it with their hands or their feet throughout a rhyme, song, or recording; they can use language to label their movements; and they can reflect on whether they moved to the macrobeat or microbeat.

6.20

Securing Steady Beat—Not Just for Children

Although it is easier to provide the foundation for timing during the sensorimotor stage of development (birth to age 2), strategies can be used with learners of any age to secure this all-important concept. The strategies include the learner working with a timed partner in the following ways:

Nonlocomotor movement ways

1. Being patted on both shoulders to the macrobeat while the timed person repeats a word with its natural accent several times in a row (yel-low, yel-low, yel-low, yel-low); speaks a rhyme; sings a song; or responds to the beat of recorded music
2. Rocking the macrobeat with a timed partner while listening to recorded music
3. Receiving tactile reinforcement from a timed person who uses the tactile assistance strategies explained on page 169.

Locomotor movement ways

1. Walking or marching to the microbeat while listening to rhymes, songs, or high-quality musical recordings
2. Performing fundamental locomotor movements to the microbeat while speaking rhymes, singing songs, or listening to musical recordings
3. Performing international folk dances from *Teaching Movement & Dance*, Third Edition (the Locomotor Movement I dances)

Learning to Respond to Steady Beat From Visual or Aural Cues

When a child speaks a rhyme, sings a song, or plays a musical instrument alone, that child is using his or her own internal beat to organize the words, melody, or instrumental sounds. When that same child speaks or sings in unison with others, it is often the beat of a leader that is being followed. A child whose internal timing is weak, however, may have trouble following someone else's steady beat, especially when the words or melody or instrumental sounds are layered upon the steady beat.

There are specific ways to help children learn to follow a leader's beat, and they employ the **separate** strategy of the Teaching Model introduced in Chapter 2. One way is to work with children's response to *visual* cues. The other way is to work with their response to *auditory* cues. At this point, the concern is not with the children reciting, singing, or playing an instrument with others—it is only with their ability to watch and respond or to listen and respond to a steady beat.

Kindergarten children have chosen to pat both hands to keep the beat. While one child leads the others, an adult reinforces the movement with tactile assistance and the word "PAT."

Responding to visual cues. Here are some steps to take to evaluate and strengthen children's ability to follow visual cues for steady beat.

1. The teacher or a child leads in patting or rocking or walking a steady beat; the children watch this visual cue and then join in moving to the beat. It is important for children to lead often, so they begin with their own internal tempo. (A child might also be the leader for a small group or for a partner, with one leading with the visual cue and the other following.) They then add the label to their action. Without the cognitive link that comes with saying some word such as "MARCH, MARCH, MARCH, MARCH" as they walk, or "PAT, PAT, PAT, PAT" as they pat, children usually have a difficult time *keeping* the beat in a situation such as this. The next step is also helpful, especially for students in second grade and above.

2. The teacher (or a student leader) begins the steady-beat movement, and the others, watching that movement, first organize the beats by saying "WALK, WALK, WALK, WALK" (or some other appropriate word) *before* joining in with any movement. Then, using learner SAY & DO, they begin moving to the beat while continuing to say "WALK, WALK, WALK, WALK." They have first established the steady beat cognitively by saying the word, and then they have made a cognitive-motor link by moving in time to the words. Note that students may sometimes say the words in steady beat but *not match their movements to that same beat.* This clearly shows that they do not yet have the ability to synchronize thought and movement response. Children younger than about age 7

may need to start right off with SAY & DO, because they have difficulty with simply saying the words when not moving. (See Chapter 4 for a full explanation of the Four-Step Language Process.) The ability to use learner SAY & DO should be established in preschool and continued throughout life for maximum ability to link motor tasks to cognitive functioning.

Responding to auditory cues. Some steps to evaluate and strengthen children's ability to follow auditory cues are these:

1. The teacher (or child leader) repeats a descriptive movement word in steady beat *without doing* the movement. For example, the teacher might say "KNEES, KNEES, KNEES, KNEES." The children listen to this auditory cue and begin to pat their knees, matching their patting to the timing of the words. As with the visual cues, some children who are not fully attending to the auditory cue may not match the timing accurately. The next step may help such children.

2. The teacher (or leader) says "KNEES, KNEES, KNEES, KNEES," and the students join in *saying the word before they begin the movement.* Only after they are saying the word with the teacher do they begin patting their knees to the timing of the words. Thus, they have first made a cognitive link with the auditory cue, then added the movement. As with the visual cue, the child below second grade may have difficulty beginning with the words alone and instead will need to say the word *while* patting the knees.

Using an anchor word. The auditory and visual cue methods can be adapted to working with a rhyme, song, or recorded musical selection. The word that is used to bring the group to synchronization is called the *anchor word.* The anchor word used before starting a song can be sung on the song's starting pitch, or *anchor pitch.* Insert 6.21 on the next page explains how the teacher or a student can use an anchor word along with a movement to establish the macrobeat for the rhyme "Peas Porridge Hot" or the microbeat for the song *Row, Row, Row Your Boat.*

Notice that in both examples in Insert 6.21, only the teacher speaks the anchor word (or sings the anchor pitch) that brings the group to synchronization of movement before adding the words of the rhyme or song (a student leader could also serve this function). Only one voice is heard. In the first example of Insert 6.21, a visual cue came first (the student rocking); in the second example, the auditory cue came first (the teacher speaking the anchor word or singing the anchor pitch). Older students often benefit from the use of an anchor word as much as younger students do.

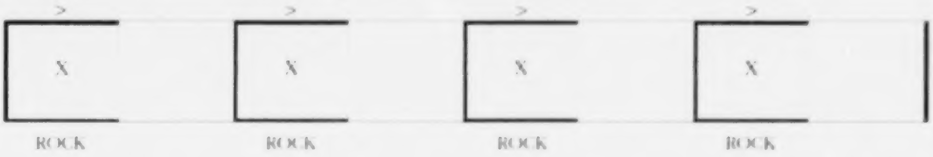
Using recorded music. Instead of a leader establishing the beat for all to follow with rhymes and songs, recorded music can also be used to establish the tempo for children's movement. In that case, the teacher (or a student leader) can softly speak an anchor word to the underlying steady beat of the music during the *introduction to the music.* This word is then dropped, once the introduction is over and children have begun moving to the beat. Sometimes it is necessary to bring the anchor word in again if the children's attending slips or if they lose the beat for some other reason. Eventually, children will develop the ability to feel, express, and *keep* the steady beat of music all on their own. The progression is

6.21

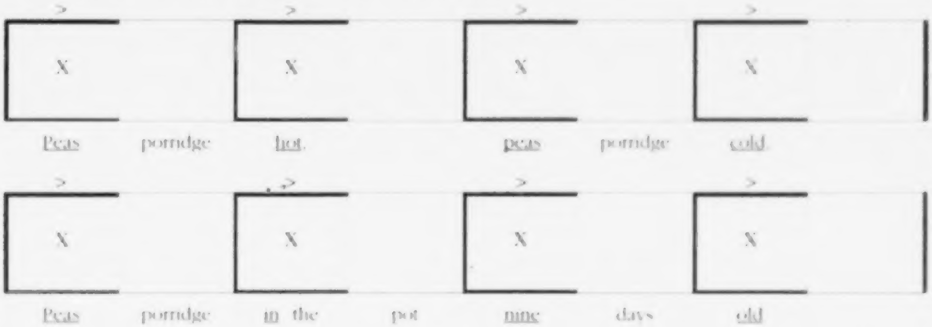
Using an Anchor Word (Anchor Pitch)

"Peas Porridge Hot"—Visual Start-up:

1. A student leader begins a rocking motion.
2. The teacher speaks the word "ROCK" four times to the leader's tempo, to reinforce the beat. (Only one person is saying this anchor word to the macrobeat.)

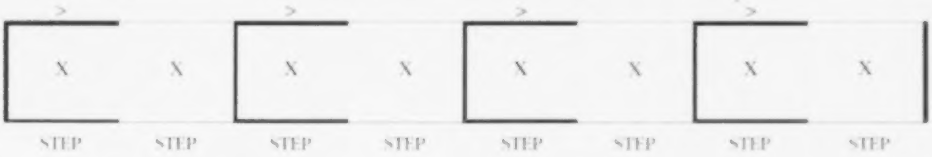

>
>
>
>
X
X
X
X
ROCK
ROCK
ROCK
ROCK

3. The group then focuses on matching their motion to this tempo; all join the leader in rocking.
4. The rhyme is immediately layered onto that beat by the teacher, if listening and moving is the focus.
5. The rhyme is recited together by the class after all have responded to the anchor word, if speaking and moving to the macrobeat is the focus.

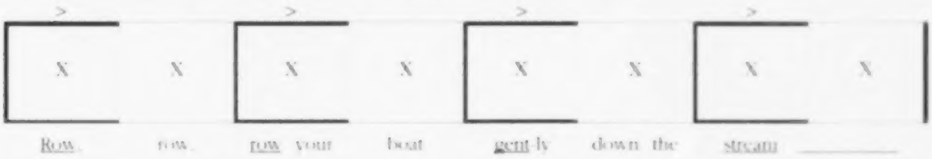

X
X
X
X
Peas porridge hot,
peas porridge cold,
X
X
X
X
Peas porridge in the pot
nine days old

***Row, Row, Row Your Boat*—Verbal Start-up:**

1. The teacher or a student leader begins by saying the anchor word "STEP" eight times. (Only one person is saying the anchor word to the microbeat.)


X
X
X
X
X
X
X
X
STEP
STEP
STEP
STEP
STEP
STEP
STEP
STEP

2. The group focuses on matching their walking to this tempo.
3. The song is then layered on by the teacher or student leader, if listening and moving to the steady beat of a song is the focus.
4. The class sings the song after all have responded to the anchor word, if singing and moving to the microbeat is the focus. *Note:* Singing the anchor word on the starting pitch (anchor pitch) enables everyone to begin singing together on the same pitch.


X
X
X
X
X
X
X
X
Row,
row,
row your
boat
gent-ly
down the
stream ________

Second graders pair up to take turns patting the steady beat on the shoulders of a partner. They are responding to the macrobeat of recorded music.

from (1) feeling and expressing their own internal beat to (2) feeling and expressing the beat verbally or visually cued by others to (3) finally feeling and keeping, on their own, the beat of rhymes, songs, and recorded musical selections.

Tactile assistance for the learner. For some children (and older learners as well), expressing steady beat is not easy. For such students, we have found that tactile experiences (hands-on guidance) can lead to success. Two successful strategies are these:

1. The teacher stands behind the learner, who feels while the teacher pats the learner on the shoulders. (The learner's permission has been obtained before touching.) This patting can be accompanied by saying a single word, "PAT." The student who is tactually assisted tries to match the feel by patting on the knees. Words; phrases; or a rhyme, song, or instrumental selection can be added for this tactile assistance. This strategy works well when parents or classroom helpers or older students work one-on-one with younger children.

2. The teacher stands in front of the seated learner. The learner places both hands on top of the teacher's hands, which are face down. With their hands moving in unison, the teacher's hands pat the seated learner's knees, while the teacher says "PAT" with each contact. After the learner listens and feels this steady beat for a while, the learner says "PAT" in time with the movement. Eventually, the teacher explains that her or his hands will stop patting (slipping out from under the learner's hands), but the learner will continue the patting and speaking. Later the teacher can add a rhyme or song, keeping the same beat. Thus the teacher has set up a "listen and feel" strategy, together with SAY & DO, to lead to success for the learner.

Types of Movement Used for Feeling and Expressing Steady Beat

While children are learning to feel and express steady beat, the movements that are used for expressing beat should be *single* rather than sequenced movements. Doing a sequenced movement (such as "NOSE, KNEES" or "BEND, STRAIGHTEN") requires higher concentration and coordination and may distract children from the central idea of steady beat. A single movement (such as "TWIST, TWIST, TWIST, TWIST" or "STEP, STEP, STEP, STEP") takes one beat to complete before it is repeated; one movement coincides with one beat. As explained in earlier chapters, a single movement can be executed with two sides of the body (both hands patting knees); with one side of the body moving repetitively followed by a corresponding repetitive action on the other side of the body (the right hand pushing in front of the body several times, then the left hand doing the same); or with alternating movements (walking feet or alternately patting knees).

Some examples of single nonlocomotor movements that are appropriate for expressing steady beat are patting, shaking, pounding, and rocking. Patting, shaking, or pounding can be performed by two sides of the body (symmetrically) or by one side alone; rocking is an alternating single movement. Examples of single locomotor movements for steady beat are stepping in place, walking or marching forward or backward about general space, jumping, and hopping. Of all of these, jumping and hopping require the most concentration to keep in steady beat. The movement expressing steady beat should be made as *silently* as possible, so children are not receiving auditory cues. When children are not patting or stepping the beat all together, the sound can be confusing.

The Beat Awareness Stage of Developing Basic Timing

Recalling the definition of beat awareness that was given earlier, we can say that children who have achieved beat awareness are able to

- Express their own internal steady beat with a faster tempo, using nonlocomotor or locomotor movement (this tempo approximates the microbeat for rhymes, songs, and recordings) and with a slower tempo (approximating the macrobeat), using nonlocomotor movement
- Match the tempo initiated by another person visually or verbally
- Copy a leader's movement performed to the microbeat or macrobeat of a rhyme, song, or recording
- Discover that there are two main concepts of beat for responding to rhymes, songs, and musical recordings—a microbeat and a macrobeat

When it comes to internal steady beat, children seem to naturally demonstrate a faster tempo before they demonstrate a slower one. Infants in backpacks quickly bouncing themselves up and down are feeling and expressing their internal beat; so are pretoddlers who hold onto a chair or table and bounce in a steady, repeated way. Even without musical accompaniment, preschoolers can be seen marching and parading to their natural steady beat tempo, or patting dough or hammering in a similar way. The youngest children—infants and toddlers—almost invariably use just the microbeat of a rhyme, song, or recording, because they lack awareness of the macrobeat aspect of steady beat; they also lack the body control to express macrobeat in the upper body, as well as the control, strength, and balance to express macrobeat in locomotor movements of the lower body.

Working with microbeat. Since microbeat seems to be most naturally demonstrated by beginning beat-keepers (of any age), this may be where teachers can start working with students in developing beat awareness—the first stage of basic timing. The steps to ownership of basic timing are given in Insert 6.22.

6.22

Basic Timing: Steps to Ownership

1. Finding and expressing one's own steady beat
2. Matching another's steady beat—visual and auditory cues
3. Expressing beat in words, companion words, word phrases
4. Keeping beat with rhymes, songs, and recordings
5. Extending timing to other areas

Each of the steps in Insert 6.22 can be applied first to microbeat with locomotor movement and to macrobeat with nonlocomotor movement. The steps, which are sequenced developmentally, each involve children having many varied experiences. Locomotor

During transition time in the classroom, students initiate this favorite beat-keeping activity—moving about in trains of three or four. Besides being fun, this helps to secure microbeat in locomotor movement.

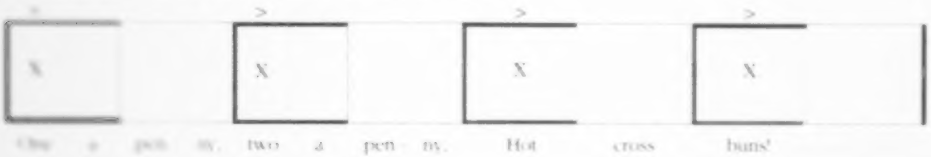
movement experiences, particularly stepping in place, give children opportunities to use their more natural tempo as they listen to rhymes or songs. Gradually children will add in parts of the rhyme or song. Single words and two-word combinations (companion words) can be spoken with learner SAY & DO. Each word is pronounced as it is naturally spoken, with the step synchronizing with the accented syllable of the word.

Working with macrobeat. When children express the beat of rhymes, songs, or musical recordings by moving to the microbeat with nonlocomotor movement (which is more natural to them), there is a chance that some children will begin to confuse the microbeat with the *rhythm of the words or notes,* as explained earlier. This confusion may occur because the shorter intervals between the microbeats often closely match the word or note rhythm. Since *macrobeat,* with its slower tempo, organizes, or groups, the microbeats, it is usually more distinct from the word or note rhythm (see Insert 6.23). Introducing slower nonlocomotor movement as well as macrobeat with nonlocomotor movement to accompany rhymes, songs, and recordings is important for children from preschool age on up. On the road to developing beat competence from beat awareness, while children are having many experiences with microbeat in locomotor movement, discovering macrobeat with nonlocomotor movement is also important.

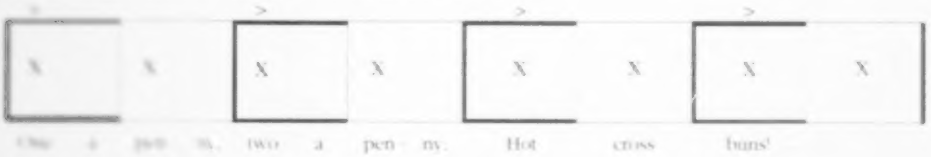
6.23

Macrobeat, Microbeat, and Rhythm Compared

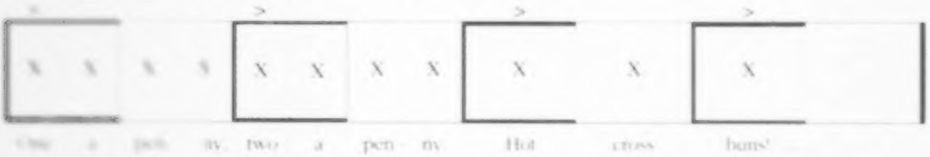
"X" represents slow, steady pats to the **macrobeat:**



"X" represents faster, steady pats to the **microbeat:**



"X" indicates eight fast and three slow pats to the **rhythm:**



Experiences relevant to introducing macrobeat should follow this progression:

1. Feeling and expressing the **rocking macrobeat** (with tactile endpoints) while *listening* to rhymes, songs, or recordings, to develop the hearing-feeling connection. (The text of some children's books, such as the text of Dr. Seuss's *One Fish, Two Fish*, can also be read and accompanied with a steady macrobeat.)
2. Feeling and expressing macrobeat by rocking or patting the macrobeat while speaking single words, companion words (teddy bear, teddy bear, teddy bear, teddy bear), and word phrases (through the arch, through the arch, under the bridge, under the bridge) with a steady beat.
3. Feeling and expressing macrobeat by rocking or patting while listening to a musical selection, learning a new rhyme or song, or singing.
4. Playing a simple rhythm instrument as a macrobeat accompaniment to a rhyme or song, or (for older students) bouncing a ball on the macrobeat.
5. Identifying, comparing, and organizing macrobeats or microbeats in recordings, songs, etc.
6. Extending understanding of macrobeat timing to other areas.

Insert 6.24 gives examples of when the rock occurs as children express the macrobeat of two nursery rhymes. The macrobeat tempo of rhymes and songs can be set by the child or teacher, using the first step in Insert 6.22 ("Basic Timing: Steps to Ownership"). For recorded music, of course, the macrobeat tempo is already set by the musicians (which implies using the second step in Insert 6.22). Children need opportunities to work from their own internal tempo before facing the more difficult task of following someone else's tempo.

Of all the nonlocomotor movements that children can use to express macrobeat, rocking gives the strongest feeling of beat organization. For many children, rocking can be calming and reminiscent of when they were rocked as young children (see Insert 6.25 on page 175).

Preschoolers and K–3 children will be more successful when they rock with someone else—with a partner, in a short line of children, or with the whole class. (If children rock as partners, it works best if one child already has beat competence.) Rocking activities are a good opportunity for parent or older-student participation in the early elementary classroom. Parents or students from upper grades enjoy coming to the kindergarten to be partners for children in beat-keeping experiences.

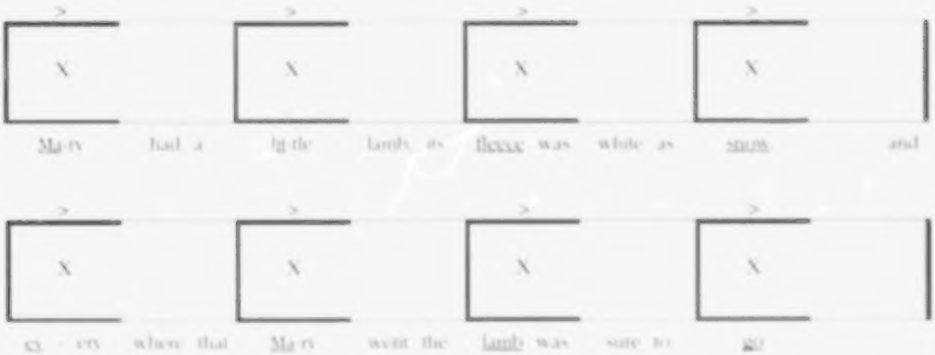
When several children rock together, it works well if they all sit close together, side by side, in a line, with arms around one another's waist or shoulders, and rock from side to side. Those children (or adults) who sit on each end of the line should be "timed," so they can best help the others to feel the macrobeat. Those sitting on the ends can use the following strategy to avoid falling over when the whole line rocks toward them: If their free, outside, arm is out-

6.24

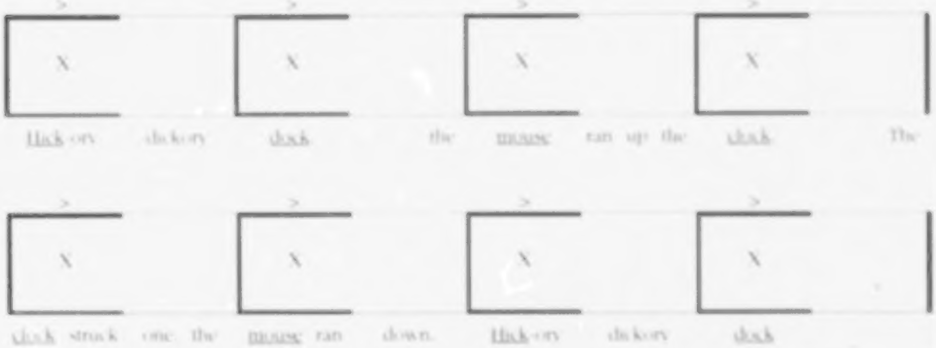
Rocking to the Macrobeat of Rhymes

In these diagrams, "X" indicates when children should rock to express the macrobeat.

Mary Had a Little Lamb


X X X X
Ma-ry had a lit-tle lamb, its fleece was white as snow. and
X X X X
ev - ery where that Ma-ry went the lamb was sure to go.

Hickory Dickory Dock


X X X X
Hick-ory dickory dock the mouse ran up the clock. The
X X X X
clock struck one the mouse ran down. Hick-ory dickory dock

Rocking front to back while the whole kindergarten class is connected in a circle enables children to listen and feel the macrobeat organization of rhymes and songs.

stretched to the side, elbow straight, with the hand touching the floor, this arm can be the "brake" that stops the rocking to each side before the arm feels uncomfortable.

Other strategies for expressing slower beat and macrobeat with younger and older students include the following:

- Children perform nonlocomotor movements to the slower beat, uniting single words with single motions, such as swinging both arms and saying "SWING, SWING, SWING, SWING" or twisting the body saying "TWIST, TWIST, TWIST, TWIST."
- Children pat with two hands, or with one hand alone, as another nonlocomotor movement for slower beat-keeping.
- Children work as partners. One child sits with knees drawn up and feet flat on the floor. The partner sits in front of him or her, with shoulders touching the first child's knees. The front partner rocks side to side, using the stabilized knees of the rear partner as the tactile endpoints of the rocking motion.

6.25

The Calming Effect of Rocking

Working with a music class of first- through third-graders, a teacher shared a favorite childhood lullaby with the students. One student, who was often highly restless and active, volunteered to be rocked by the teacher to the lullaby. As the song was sung, the usually restless child became more and more relaxed. The teacher also observed a heart-warming scene: The rest of the children in the class quietly moved closer together and arranged themselves in pairs for one to rock the other. From that day forward, the restless child seemed more relaxed in the classroom, and the class often requested the rocking lullaby.

Some other appropriate musical selections for rocking in the classroom are these:

Gaelic Waltz (RM1)
Oh, How Lovely (RM1)
Levoi Chiyachech (RM8)
Bulgarian Dance (RM8)
Tsamiko (CD2)

A standing position, with two students between poles, is just one of many possible variations of rocking.

- Students stand with feet apart and rock back and forth to the slower beat, keeping the feet in contact with the floor (which is nonlocomotor—anchored—movement).

- Children use objects (poles, ropes, or rhythm wands) for rocking to the slower beat. All hold the pole and rock forward and backward.

- Children play a rhythm instrument to the slower beat. Kindergartners, for example, might work in pairs, with one child holding a triangle while a partner strikes it on the macrobeat.

- Children create a slower beat chant by each child taking a turn saying his or her name several times, accenting the name as it is naturally accented. The endpoint of the rock occurs when the accented syllables are spoken (e.g., Stephanie, Stephanie, Stephanie, Stephanie, Dewitt, Dewitt, Dewitt, Dewitt).

- Instead of using their names, children create a chant by saying multisyllable words found in reading or other academic areas or multisyllable words from rhymes or songs (see Insert 6.26). They accent each word naturally (e.g., dinosaur, dinosaur, dinosaur, dinosaur, together, together, together, together).

- Children create a chant with **companion words**, such as "purple popsicle" or "soccer game." They begin with the rock or pat on the accented syllable of each individual word: purple, purple, purple, purple, popsicle, popsicle, popsicle, popsicle. Then they put the two words together, with one rock on each pair of words: purple popsicle, purple popsicle, etc.

- Students work as partners. Both begin to rock in the same timing. The leader speaks a word phrase (e.g., over the bridge) to the rocking beat. The follower waits until the leader completes the phrase and then responds with an echo, while rocking. A given phrase may be repeated by the leader and echoed by the follower several times before the other partner starts the rocking beat and speaks a new phrase to be echoed. A similar echo activity can involve singing instead of speaking.

- Each student says one of a list of spelling words, accenting it naturally, and then spells the word, with each child continuing to keep a steady beat by accenting certain syllables and letters: elephant, E-L-E-P-H-A- N-T, elephant, elephant; dessert, D-E-S-S-E-R-T, dessert, dessert).

6.26

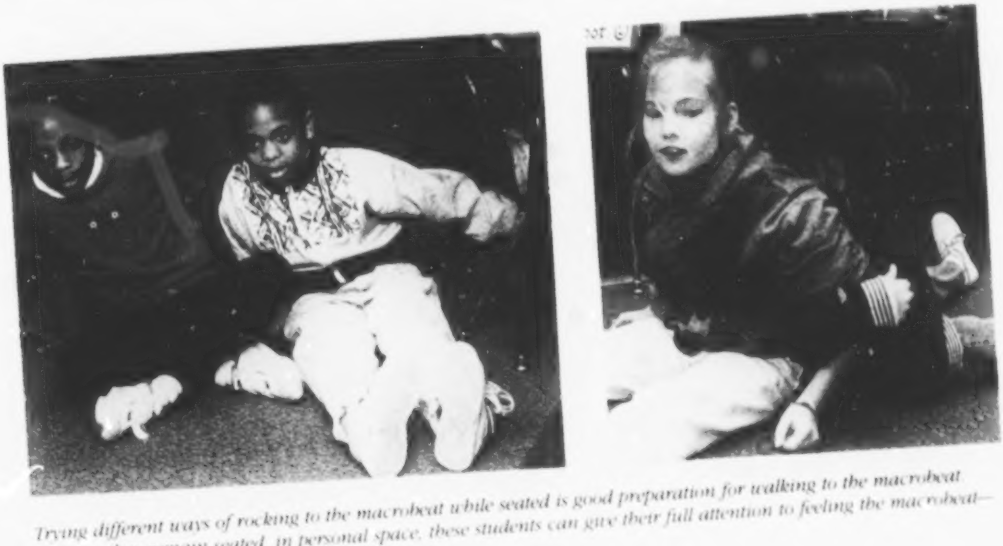
The Macrobeat of Words Proves Useful

Oftentimes children can have more success with rocking to the macrobeat as they sing a song if they practice *saying certain words of the song in steady beat* before singing them. A kindergarten music class, for example, practiced saying these words and rocking to their macrobeat: "Twin-kle, twin-kle, twin-kle, twin-kle." After this practice, they added "lit-tle" in repetition, and then "star." Following this strategy, they were able to rock to the macrobeat while singing the song *Twinkle, Twinkle, Little Star*. The difference in the quality of their singing was evident. If children have difficulty speaking the words, they also have difficulty singing the melody accurately.

- Students take turns each reciting a multiplication fact, creating a steady macrobeat chant by the way they accent the math facts: Two times four is eight. . . . Seven times five is thirty five. When reciting each fact, the first number and the "answer" are accented.
- Children rock to the macrobeat of a rhyme or song or recorded musical selection. For the rhyme or song, the teacher can first use an anchor word to synchronize the group, then add the song or rhyme, reciting it alone while the children rock. (Children's first experiences should be simply responding to macrobeat *without* also singing or speaking, thus developing the hearing-feeling connection.)
- Partners, or several students, sit one behind the other. Each student has legs outstretched on each side of the person in front. The line of students rocks front to back or side to side (with hands on the floor) while singing or speaking rhymes.

Poorly timed students need this variety of experiences to eventually attain beat competence. Students who are already timed can act as partners in these experiences, reinforcing their own basic timing and encouraging others. All students should have opportunities to be leaders, so their internal beat tempo is reinforced.

Instrumental music is the easiest for children to use when first learning to respond with movement to the macrobeat, because there are no lyrics to distract them. There are excellent instrumental selections to use for macrobeat-keeping on the *Rhythmically Moving* and *Changing Directions* recordings listed at the beginning of this book.



Trying different ways of rocking to the macrobeat while seated is good preparation for walking to the macrobeat. Because they remain seated, in personal space, these students can give their full attention to feeling the macrobeat—without attending to space awareness.

Development of Beat Awareness From Microbeat and Macrobeat Experiences—A Summary Thus Far

In kindergarten, children step the microbeat and rock or pat the macrobeat of rhymes, songs, and recordings. They are ready to achieve beat competence—ownership of *macrobeat with nonlocomotor movement* and *microbeat with locomotor movement*.

In first grade, children continue to feel the steady beat of rhymes, songs, and recorded music, using locomotor movement with microbeat. Children also rock *and* pat with both hands at the same time, using the macrobeat. They should also be ready to pat microbeat with an alternating patting motion. (They do not rock simultaneously with the alternating patting motion.) Their teacher discusses with them the comparisons between macrobeat and microbeat and demonstrates these comparisons with a particular song, such as *Row, Row, Row Your Boat*. They hear or see the macrobeat demonstrated the first time the song is sung, and the microbeat, the second time. First-graders are beginning to develop ownership of both macrobeat and microbeat in *nonlocomotor movement* while reinforcing their ownership of microbeat in *locomotor movement*.

Second-grade and older students are working with the same beat awareness concepts in order to achieve beat competence. They should be ready to perform single locomotor movements to the *macrobeat*—which is the new movement concept added for this age-level. Second-grade students usually achieve these beat awareness concepts quickly, whereas achieving beat competence, for students of all ages, takes many varied experiences.

The Beat Competence Stage of Developing Basic Timing

There are many ways that teachers can work with students in kindergarten through third grade to support them in developing beat competence from beat awareness. First of all, students need a variety of experiences using nonlocomotor movement with macrobeat to feel the organization of rhymes, songs, and recordings as well as experiences using locomotor movement with microbeat. For developing beat competence, some effective support strategies for the teacher are these:

- Suggest that children keep their movements silent.
- Encourage children to choose their own way to rock or pat steady beat.
- Avoid modeling the beat for everyone to copy.
- Use the steps for responding to visual/auditory cues on pp. 166–167.

These strategies are useful in helping children now learn to perform nonlocomotor movement to the *microbeat* and locomotor movement to the *macrobeat*. In this section we will focus on using locomotor movement for macrobeat, which should be possible by second grade.

Marching together in a "train" helps everyone to feel the macrobeat. When second-grade students have not had many early opportunities to experience steady beat, an age-appropriate activity such as this one can help them to feel the beat.

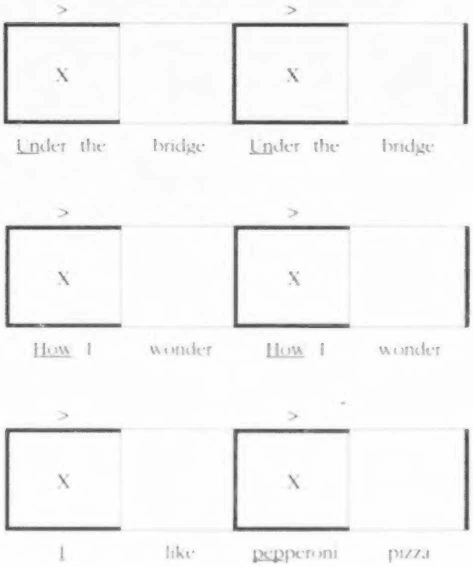
Using personal versus general space. When students in second grade are learning to express macrobeat with locomotor movement such as stepping or marching, it is best if they step or march in personal space at first, so they can concentrate on beat-keeping rather than on staying clear of other students in general space. For example, if a rhyme or song is being used, the teacher or student leader might begin to march in place. The leader uses the anchor word "MARCH, MARCH, MARCH, MARCH" to help all to begin marching in place in synchronization with the leader's marching. Then the leader begins the rhyme, speaking it so the macrobeat of the rhyme fits the timing of everyone's marching.

Opportunities to reinforce students' internal tempos present themselves when various students act as leader in this activity. After marching in place has been tried for a while, students can march in general space to the macrobeat of the rhyme. Please keep in mind that experiences such as this are valuable not just for second-grade students but for *anyone* who is learning to use locomotor movement with macrobeat, on the way to developing beat competence.

Activities for stepping, marching to macrobeat. As students are developing the ability to perform locomotor movement to macrobeat, teachers can use many of the activities decribed earlier, in connection with introducing microbeat. Students can march to the macrobeat created by chanting multisyllable words. Or they can step in place or walk to the macrobeat created by chanting and then spelling a list of spelling words. Doing some locomotor movement, such as walking or marching, while counting forward and backward by twos, threes, or fours is a challenge for older students. Stepping or marching to the macrobeat while reciting or singing phrases from rhymes or songs is also a possibility. Echo-speaking and echo-singing can also be used with locomotor movement to macrobeat, as they were with nonlocomotor movement to macrobeat.

6.27

Word Beat-Boxes for Macrobeat Walking



A chant made up by repeating multisyllable words or companion words, with natural accents and pauses between the words, creates a good approximation to the macrobeat tempo used for rhymes, songs, and recorded music and is useful for learning to walk to the macrobeat (see Insert 6.27).

Keep in mind that performing locomotor movement to the macrobeat is most successful in about second grade or above. Younger children generally do not have sufficient balance to take the slower, sustained steps that macrobeat requires. A student just beginning to learn to walk or march to the slower tempo of macrobeat does best with stepping in place, with a longer duration after each step.

Be sure to sing or speak the words that establish the macrobeat just as you would naturally sing or speak them; deliberately slowing down the tempo too early can induce the "two-footed walk," in which children interrupt the flow of their movement by transferring their weight onto two feet between each step, to keep their balance.

It is important to retain the *single* nonlocomotor and locomotor movements in working to develop beat competence. Sequences, or patterns, of locomotor movement are confusing for students who have not achieved basic timing. (They will be discussed in the next key experience, *moving in sequences to a common beat.*) Use of learner SAY & DO is also important in developing basic timing and should accompany both locomotor and nonlocomotor movements as long as necessary.

Use of other locomotor movements. Though we have emphasized performing *locomotor movement to macrobeat* thus far in discussing the second-grade and older students' development of beat competence, it is important, once beat awareness is in place, to continue to provide experiences with keeping macrobeat and microbeat in both locomotor and nonlocomotor movement. Additional locomotor movements, besides walking and marching, that are appropriate for *microbeat* in particular, are two-feet jumping and one-foot hopping. Galloping, sliding, and skipping can be additional movements used for microbeat or macrobeat, to provide a further challenge. However, students need to be comfortable with performing these latter kinds of locomotor movement to their internal timing before they try to synchronize them to an external beat.

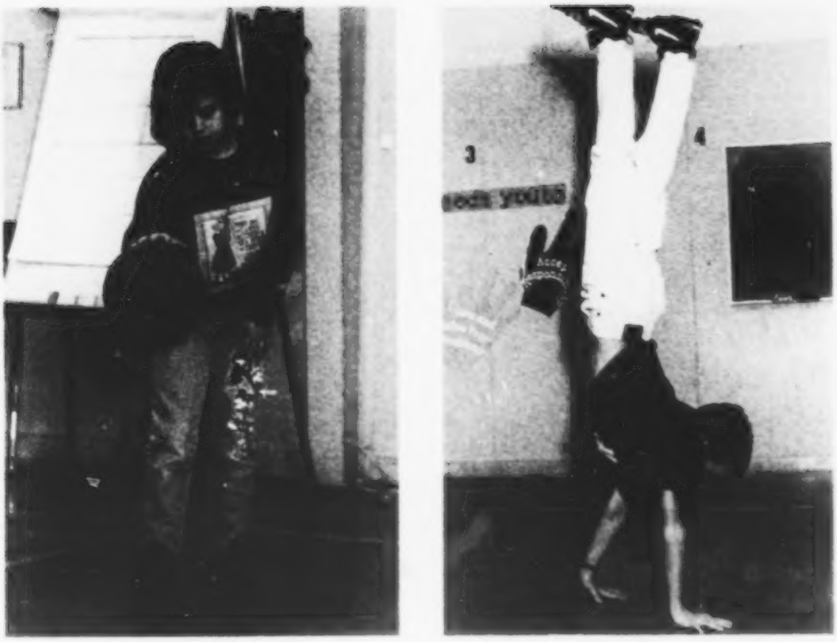
Hopping (as these students are doing), as well as jumping, galloping, sliding, and skipping can be done to macrobeat or microbeat, though microbeat is perhaps easier to use with these movements.

Specialists such as music and physical education teachers can extend the classroom teacher's efforts in establishing children's beat-keeping abilities. In doing so, they make a significant difference in their own curriculums. Three books available from High/Scope Press provide 3- to 7-year-old children with additional experiences with beat: *Movement Plus Music, Movement Plus Rhymes, Songs, & Singing Games,* and *Movement in Steady Beat.*

Extensions of timing. Being able to extend microbeat and macrobeat to other areas of learning constitutes the final important step to ownership of basic timing. These extensions are appropriate beginning in about third grade, when children are secure in basic timing. The extensions include

- Moving in coordinated ways.
- Timing of fundamental motor and manipulative skills.
- Moving with extensions of nonlocomotor and locomotor movement (direction, level, pathway, etc.).
- Timing of sport and game skills.
- Integrating movement sequences (microbeat or macrobeat in nonlocomotor and locomotor movement simultaneously).
- Performing and choreographing dances.
- Singing while moving purposefully.
- Performing accurate rhythm patterns based on the underlying steady beat (see *Foundations in Elementary Education: Music* for more on rhythm extensions for K–3 children).
- Playing instruments in ensemble or as accompaniment to songs.
- Organizing and planning one's time.
- Processing aural and visual stimuli.
- Reading with comprehension (see Insert 6.28 on the next page).

These extensions represent skills and abilities important for life-long learning and enjoyment. As explained in this chapter (p. 157), the extension of performing accurate rhythm patterns can only be addressed *when steady beat is secure.*



Without ownership of basic timing, these students could not perform the complicated tasks of bouncing a ball to the steady beat and walking on hands

6.28

Basic Timing and Reading Comprehension

What does basic timing—the ability to independently feel, express, and keep steady beat—have to do with reading? The answer goes all the way back to infancy.

It appears that an infant who receives sufficient steady-beat reinforcement develops the ability to speak language "in a timed way." Toddlers and young children learn to use a flow of speech that has cadence—that is built around timed patterns and pauses. Children who are timed take that same flow of speech into reading and therefore begin to connect words into phrases and sentences. Such children do not "word call," that is, they do not read each word without connecting it to other words in a comprehensive whole. Children who are timed also have the ability to attend to stimuli, both visual and aural—which is important for all areas of learning.

In a pilot research project conducted by Phyllis Weikart, as well as in an unpublished research project conducted by Joy Kiger, an Endorsed Trainer in the "Education Through Movement" program, the findings were that children who possess basic timing are more often in the high-ability reading groups. (See also Appendix C.)

When children have falling test scores in the essential areas of language and literacy, this points to an urgent need to find solutions to the problems of children's lower comprehension, limited vocabulary, and lack of basic communication skills. If these problems correlate with a lack of basic timing skills, solutions may be nearer than first thought!

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The Developmental Sequence Involved in Achieving Basic Timing

As explained earlier, children who have achieved **beat awareness** are on their way to achieving **beat competence.** Insert 6.29, which shows the developmental sequence involved in achieving **basic timing,** clarifies just how far the child has come in progressing from beat awareness to beat competence.

The beat awareness activities explained in a previous section can bring K–1 children to the level of beat competence that includes expressing microbeat with locomotor movements and expressing microbeat *and* macrobeat with nonlocomotor movements (see Kindergarten and Grade 1 in Insert 6.29).

In extending second-graders' and third-graders' movement foundation to **beat competence,** we add the ability to *express macrobeat in locomotor movement* (see Grades 2 and 3 in Insert 6.29). We have added the ability to not just feel and express but also *independently keep the microbeat and macrobeat.* Students with beat competence can also *extend basic timing to all learning areas.*

Of course, all learners progress at their own rate. Children's motor development depends not only on age but also on maturation and experience. The chart in Insert 6.29 provides the following approximate guidelines:

Preschool and kindergarten: Children should demonstrate slow and fast steady beat to their own internal tempo; they should match the steady beat tempos of others; they should feel and demonstrate the macrobeat of rhymes, songs, or recordings with nonlocomotor movement and the microbeat with locomotor movement.

Grade 1: Children should demonstrate slow and fast steady beat to their internal tempo; they should match the steady beat tempos of others; they should express the macrobeat *and* microbeat of rhymes, songs, and recordings with nonlocomotor movement and the microbeat with locomotor movement.

6.29

Basic Timing—Developmental Sequence

Nonlocomotor Movement	Macrobeat •	Microbeat •	Either
Locomotor Movement	Microbeat •	Macrobeat •	Either

Grade	**Timing**
Preschool and Kindergarten	Nonlocomotor movement in macrobeat Locomotor movement in microbeat
Grade 1	Nonlocomotor movement in macrobeat and microbeat Locomotor movement in microbeat
Grade 2	Nonlocomotor movement in macrobeat and microbeat Locomotor movement in microbeat and macrobeat
Grade 3	Extending timing to all learning areas, which includes singing and moving, performing accurate rhythm patterns, and integrating movement sequences from a solid foundation in steady beat.

Macrobeat and *microbeat* are Dr. Edwin Gordon's terms.

Grade 2: Students should demonstrate slow and fast steady beat to their internal tempo and the tempos of others; they should express the macrobeat and microbeat of rhymes, songs, and recordings in either nonlocomotor or locomotor movement; they should also be able to keep beat in more complex ways, using extensions of nonlocomotor and locomotor movement and the Levels of Beat Coordination (explained later in this chapter) in choreographed movement and folk dance.

Grade 3: Students should demonstrate and lead macrobeat and microbeat in the above ways and *keep* steady beat using integrated movement, while performing rhythm patterns and while dancing; they should also demonstrate ability to change tempos and to interact with others on the field or court in sports activities. With beat competence in place, students have achieved basic timing and can use this ability throughout life to enhance any area in which timing is fundamental.

Summary of Feeling and Expressing Steady Beat (Insert 6.30)

Basic timing is the observable outcome of the key experience *feeling and expressing steady beat.* A student with basic timing can independently *feel* the underlying steady beat, *express* it with nonlocomotor and locomotor movement, and *keep* it throughout a rhyme, song, or musical selection. Basic timing underlies success with many tasks across curricular areas and throughout life.

In developing basic timing, the child's internal steady beat—which is usually **microbeat**—is the first beat to work with. Young children also need to experience rocking and performing other nonlocomotor movement to the **macrobeat,** which organizes groups of two or three microbeats. The first beat that children walk to should be the microbeat, the natural walking beat.

6.30

Summary of Feeling and Expressing Steady Beat

Observable outcome:
Basic timing

Concepts included:
Hearing-feeling connection developed from listening
Single movements
Silent movements
Macrobeat organization
Microbeat
Anchor word for synchronization
Learner SAY & DO for cognitive-motor connection

At first children keep steady beat by following visual and verbal cues provided by the teacher or a leader. Then they graduate to keeping steady beat while listening. Repeating a single word and matching single movements to the beat created follow. Next they move to the steady beat that is created as they chant multisyllable words or companion words, recite rhymes, and sing songs. Instrumental music also provides steady beat for their movements.

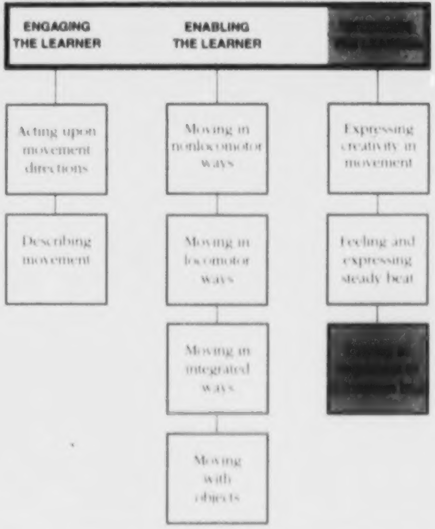
As children have a variety of experiences that allow them to move from the first stage (**beat awareness**) to the second stage (**beat competence**) of basic timing, they gradually develop ownership of steady beat and are able to extend timing to other areas of movement and music. In particular, they are ready to understand rhythm, the action of words and notes within and among the beats. They also discover that steady beat is central to almost everything they do and that mastery of it has life-long significance.

Beat is steady, beat is steady.
Silent beat, single beat.
Macrobeat for rocking, microbeat for walking.
Feel the beat, keep the beat.

O‑╖ Moving in Sequences to a Common Beat (Insert 6.31)

6.31

Key Experiences in Movement


ENGAGING THE LEARNER
ENABLING THE LEARNER
Acting upon movement directions
Describing movement
Moving in nonlocomotor ways
Moving in locomotor ways
Moving in integrated ways
Moving with objects
Expressing creativity in movement
Feeling and expressing steady beat

Mastery of steady beat—being able to independently feel, express, and keep macrobeat or microbeat—is most useful to children, and to learners of any age, if they can extend that mastery from single movements to more and more complex movements that require greater body coordination. The mastery is even more useful, and enjoyable, if students can also extend it to performing those various kinds of coordination-based movements not only alone but also in synchronization with others. Therefore this chapter on "Extending the Learner" concludes with a discussion of the key experience *moving in sequences to a common beat.*

The observable outcome of this last key experience is **beat coordination,** which enables the student to **sequence movements performed in steady beat and to do so not only alone but also with a partner or group.** Obviously, beat coordination is built upon and includes the general movement ability of **coordination** as well as the specific movement ability of **basic timing,** discussed with the previous key experience. It is also fundamental to many important large- and small-muscle activities that a person encounters throughout life.

Having beat coordination (and the basic timing it implies) makes it possible to *use the steady beat of one's own internal timing* in performing many kinds of complex sports movements. A ball player fielding a ground ball and throwing it to first base is using beat coordination that involves her or his own timing; so is a competitive swimmer executing a turn at the end of the pool. A gymnast performing a routine on the horse, the uneven bars, or the high bar uses beat coordination as well.

Beat coordination also makes it possible for sport participants to synchronize their complex movements with others—*to time their movement.* A quarterback with beat coordination not only throws the ball but also times the throw to reach a receiver. The shortstop with beat coordination knows how to begin a double play by getting the ball to the second baseman as he reaches the bag.

In both individual and group sports, the competitor who possesses basic timing *and* the extension of timing that we call beat coordination is at an advantage in perfecting the skills required by a particular sport or game. Coaches often remark, "His (or her) timing was off." Over the years, our opportunities to work with coaches have made them aware that their athletes who

Performing a gymnastic move such as this cartwheel requires precise timing of a sequence of movements that unite into a whole. Along with timing, the gymnast must demonstrate strength, coordination, and balance.

experience difficulties perfecting sport skills are those who lack basic timing and beat coordination.

Other common movement experiences involve using beat coordination as one moves either to an internal steady beat or to a common steady beat. Children use beat coordination when they participate alone or together in action songs and when they join together in singing games. They use it in many small-muscle tasks, such as handwriting, typing, or knitting. People of all ages use beat coordination when they drive a car with a stick shift; perform assembly line tasks; perform a dance alone or with others; perform in a synchronized swimming group; do hand-jives; execute cheerleading or aerobic routines; perform in a marching band, show choir, or musical ensemble.

Musicians clearly use beat coordination when they finger melodic instruments or play percussion instruments. If an aspiring musician is timed and also has beat coordination, learning to play an instrument is a much simpler task. Many students who take lessons in instrumental music lack an adequate foundation in beat-keeping and beat coordination.

Again, changes in our daily lives—more sedentary occupations and recreation, less group and social interaction—may have cut down on occasions when beat coordination is developed or used. Earlier we lamented the decline in numbers of people with basic timing. Sad to say, we also encounter many people with basic timing who have not gone on to build on their basic timing by developing beat coordination. Their inability to perform sequenced movements to steady beat, alone or with others, precludes their participation in all sorts of daily activities that could enrich their lives. So the problem is this: How can we facilitate learners in *moving in sequences to a common beat?* How can we help them to extend their movement abilities in ways that prepare them for life-long learning and enjoyment? To answer this, we first discuss what *sequenced movements* include. We then explain how the Four-Step Language Process (introduced on p. 83 of Chapter 4) comes into play in introducing students to timed movements of increasing complexity. As you will see, the Four-Step Language Process is relied on heavily as students progress through the Levels of Beat Coordination, which are explained in the remainder of the chapter.

What Are "Sequences"?

Since this last key experience has to do with "moving in sequences," a longer look at what sequences are seems to be in order. Recall that in Chapter 3, in explaining the *movement core,* we said that "sequenced" refers to two or more different movements joined together. A sequence combines two or more purposeful movements; once these are completed, the sequence can repeat itself. These movements generally are timed, so steady beat comes into play.

One example of a sequence is *bending* and then *straightening* the arms (or the legs, in the case of pumping a swing). Bending is the first movement of the sequence, and straightening is the second movement. If the bending-straightening sequence involves pumping a swing (see Insert 6.32), the legs bend as the swing goes back and straighten as the swing goes forward. A bending-straightening sequence can be thought of as having a first beat and a second beat. Most people find it relatively easy to perform a bending and straightening sequence to their own internal steady beat. However, this last key experience, *moving in sequences to a common beat,* extends that ability to also being able to perform a bending and straightening sequence to an external steady beat, or with others—which people usually find more difficult.

6.32

A Preschooler Uses Sequenced Movements

One spring day, during outside time in the High/Scope demonstration preschool, an adult was pushing a 4-year-old boy on the swing. She noticed the child's legs were beginning to perform the bending and straightening motion used in pumping. The adult began to reinforce the child's natural movement with language, saying "BACK" as the legs went back and "OUT" as the legs went out. As the child felt the timing of the words, his movements became larger and more pronounced, and he moved to the steady beat. From that day on, the child was able to pump himself on the swing.

Sequences can be longer than two movements. For example, consider straightening both arms in front of the body (first movement), then bending them to bring the hands to the shoulders (second movement), then straightening the arms overhead (third movement), and then bending them so the hands return to the shoulders (fourth movement). This sequence involves four movements and then begins again. Dances involve even longer sequences.

A different type of movement sequence is involved in swimming strokes, such as the breast stroke or side stroke. These involve both the arms and the legs going through a timed sequence of *integrated movement.* Such a sequence can be performed to the swimmer's internal steady beat or it can be synchronized with the timing of another swimmer, of a group of swimmers, or of music. A diver goes through a timed sequence of integrated movement after the approach and hurdle. An organist uses precise integrated-movement sequences involving hands and feet.

When working on beat coordination, it is important to know the ease or difficulty with which students can perform various kinds of sequenced movements. For example, **the easiest sequences are those that involve the arms in nonlocomotor movement** (bending and then straightening the arms, or patting the head with both hands and then patting the shoulders). If a hand-held object is added to an arm sequence, it makes the sequence a little more difficult (performing a sequence with mallets on a barred instrument is one example).

Next in difficulty are sequences of nonlocomotor leg movements (bending and straightening both legs while seated or lying down, for example). Seated leg-movement sequences are often done in fitness-over-50 aerobic classes. **Sequences of locomotor leg movements are even more difficult.** Examples of this type of sequence are remaining in personal space and doing just the leg sequence for jumping jacks, or doing a SIDE, CLOSE foot pattern in general space. **Sequences of integrated movement are the most difficult.** This would include dance sequences, sport skills, and aerobic routines involving the upper and lower body. This order of increasing difficulty will be important to keep in mind as we start with bilateral nonlocomotor movement and go through the Levels of Beat Coordination in the remainder of this chapter. And, as mentioned earlier, the Four-Step Language Process is another strategy to be aware of throughout the rest of this chapter.

The Levels of Beat Coordination and the Four-Step Language Process

We can assist children (and learners of any age, preschool to senior citizen) to develop beat coordination. We do this by introducing them to timed movements of increasing complexity, beginning with two levels of **single movements** and progressing through two levels of **sequenced movements** and then two levels of **sequenced alternating movements.** Together these make up the **six Levels of Beat Coordination,** which are listed across the top of the chart in Insert 6.33.

The chart shows the relationship between the Levels of Beat Coordination and the Four-Step Language Process. (This relationship will be explained in more detail in the following sections of this chapter.)

As children work toward beat coordination, the Four-Step Language Process gives them a way to combine visual or auditory information with cognitive processing in order to respond quickly and accurately. It allows them to think about what they are doing as well as to relate to the movements someone else is leading.

On many occasions, we have encountered participants even in our adult workshops who lack beat coordination. Using the Four-Step Language Process has been the route to success for such participants, just as it can be for students of all ages as they progress through the Levels of Beat Coordination. We suggest that students watch the movement demonstrated and SAY (or WHISPER) the names of the body parts or movements involved before trying to join in the movement itself. For example, a student might first watch the leader touch knees and then shoulders and then say "KNEES, SHOULDERS" in time to the movement until he or she feels ready to join in. Having this "processing time" before starting the movement leads to positive results. If children are below second grade, they will need to omit the SAY (or WHISPER) step.

Of the six Levels of Beat Coordination, Levels I through IV are appropriate for children up through first grade. Levels V and VI are attainable for students in second grade and above—provided they are developmentally ready for the more complex coordination that these last two levels involve. Because one can be a beginner in movement at any age, what we have said here about the

6.33

Combining the Four-Step Language Process With Movement to Achieve Beat Coordination

	Levels of Beat Coordination					
Four-Step Language Process	**Level I: Single Movement**	**Level II: Single Alternating Movements**	**Level III: Sequenced Movements**	**Level IV: Sequenced Movements Combined**	**Level V: Sequenced Alternating Movements**	**Level VI: Sequenced Alternating Movements Combined**
Step 1 SAY	"KNEES, KNEES, KNEES, KNEES" or "BOUNCE, BOUNCE, BOUNCE, BOUNCE"	"KNEE, KNEE, KNEE, KNEE" or "WALK, WALK, WALK, WALK"	"HEAD, SHOULDERS, HEAD, SHOULDERS" or "WAIST, KNEES, WAIST, KNEES"	"HEAD, SHOULDERS, WAIST, KNEES"	"OUT, IN, OUT, IN" or "HEEL, STEP, HEEL, STEP"	"OUT, IN, UP, DOWN; OUT, IN, UP, DOWN" or "HEEL, TOUCH, KICK, STEP; HEEL, TOUCH, KICK, STEP"
Step 2 SAY & DO	Unite language and movement. Both hands *or* both feet used simultaneously.	Unite language and movement. Alternate hands *or* feet.	Unite language and movement. Both hands *or* both feet used simultaneously.	Unite language and two Level III movements. Both hands *or* both feet used simultaneously.	Unite language and movement using one side of the body for 2 movements and then the other side for 2 movements.	Unite language and movement using one side of the body for 4 movements and then the other side for 4 movements.
Step 3 WHISPER & DO	Continue Step 2 using a whisper.	Continue Step 2 using a whisper.	Continue Step 2 using a whisper.	Continue Step 2 using a whisper.	Continue Step 2 using a whisper.	Continue Step 2 using a whisper.
Step 4 THINK & DO	Think the language and do the movements.	Think the language and do the movements.	Think the language and do the movements.	Think the language and do the movements.	Think the language and do the movements.	Think the language and do the movements.

levels for grades K–3 can be translated to older learners as well. That is, the first four levels are for "beginning" learners and the last two are for learners who are developmentally ready for them. Of course, movement examples should always be age-appropriate.

As we explain in detail, one by one, the Levels of Beat Coordination, you may want to occasionally refer to Insert 6.33 to see the overall picture again. A chart at the end of this chapter will also summarize information about the levels.

Level 1: Single Movement (two sides or one side)

Students use the same single movement in repetition, using both sides of the body simultaneously. A variation would be to use one side of the body in repetition. Example: Touch the waist repeatedly, saying "WAIST, WAIST, WAIST, WAIST" as you do so.

This is the easiest of the levels because it uses one movement repeatedly. This single movement, such as patting both knees at the same time, or patting one knee with one hand, is the same level of movement used for developing basic timing, in connection with the previous key experience. At first each movement—each pat of the hands (or hand)—is more successful if a slow beat is used. Later on students may want to try a faster beat.

Using learner SAY & DO is critical for success. Even when students are not yet able to feel, express, and keep the beat of a rhyme, song, or recorded musical selection, they are able to perform Level I movement repeatedly when learner SAY & DO is used. The movement is performed simultaneously with the spoken word, thus creating the cognitive-motor link.

chedule
Helpers

The adult leader shows second-grade students how to keep steady beat by patting their ears. Two sides performing the same repeated action is a Level I movement.

When working at this level with younger students, it is better to use a single movement that has some tactile endpoint (the knees can be the tactile endpoint for patting, for example) rather than a single movement "in the air" (punching in the air, for example). (See Insert 6.34.) The younger students usually find it easy to use the name of a body part as the word they match with the movement. One child can be leader, setting the beat by patting his or her head. The other children join in with the visual model and add the label "HEAD, HEAD, HEAD, HEAD," creating learner SAY & DO. *Note:* The strategy for students age 7 and older is to use the SAY step before the SAY & DO. The followers would say "HEAD, HEAD, HEAD, HEAD" to the leader's timing before joining with movement. They join as they are ready to do so.

6.34

Age-Appropriate Movements

This first level of coordination is important for older learners as well as younger learners. For older learners, having a tactile endpoint on the knees, shoulders, or waist usually is acceptable. However, we find that using the head, ears, or chin is not age-appropriate for older learners. With upper-elementary students, teens, and adults, we successfully use a shaking movement with both hands or one hand, a bouncing movement (as if dribbling a basketball), and pushing actions.

Another child may suggest a new movement, patting the ears. The learner SAY & DO is "EARS, EARS, EARS, EARS." After a while, music can be added, with children patting their head on the first part of the music and patting their ears on the second part. The book *Movement Plus Music,* listed in the front of this book, has additional ideas for working at this level of beat coordination. Music from the *Rhythmically Moving* series of recordings is used with *Movement Plus Music*.

Teaching techniques for Level I: Here are some specific techniques for assuring success with Level I activities.

1. Begin with movement of both hands, both thumbs, both elbows, or both legs at the same time. By first grade, students can also use the variation of moving one side in repetition several times and then the other side in repetition several times. Designating "right side" or "left side" is not encouraged, as that adds unnecessary "correctness" to the movement.
2. Use the **separate** strategy of the Teaching Model. When demonstrating a movement (leading visually), begin with only the movement and then add the SAY to create the SAY & DO. When leading verbally, begin with only the SAY for the body part or action being used. Children add the movement and then join the leader in SAY & DO. Grade 2 students SAY with the leader before adding the movement.
3. Encourage various children to assume leadership for the entire group, or create small groups or partners to give individuals leadership opportunities.
4. Repeat each SAY & DO a minimum of eight times, to give sufficient practice with each movement and to help children develop ability to sustain attention.
5. Give some exploration time when students can do Level I movement to their internal timing, trying several types of single movements and

using WHISPER & DO to organize their movements. After this exploration, individual students can lead the class in synchronized movement, using the movements they have already practiced.

6. Encourage students older than kindergarten age to close their eyes while the leader says "BEAT, BEAT, BEAT, BEAT." Students match the leader's spoken beat tempo with whatever single movement they choose. This gives the teacher an assessment opportunity, because each student is working independently of the others.
7. Add students' practiced movements to a recorded musical selection, such as *Te Ve Orez* (RM1) or *Peat Fire Flame* (RM2) or *Alley Cat* (RM3). These and many others found on the *Rhythmically Moving* and *Changing Directions* recordings are suited for Level I movement. At first organize the movements to the macrobeat. Later on you can use the microbeat, particularly if fitness is the goal.
8. Add Level I beat-keeping movements while speaking a rhyme or singing a song. This technique is more difficult because attention must be paid to the words of the rhyme or the words and melody of the song. The movement needs to "on automatic."
9. Use experiences with Level I movements as preparation for working with mallets on a barred instrument.
10. Introduce echoing as a more advanced way to work with Level I movement. The teacher (or leader) repeats a single movement two or four times, and the students copy after the teacher finishes. The task becomes even more challenging if the teacher goes on to do the next four movements while the class is copying the first four (echo movement). Activity 67 in Chapter 7 involves echo movement.

Level II: Single Alternating Movements

Students perform a single movement on one side of the body and then repeat the same movement with the corresponding body part. This single-alternating-movement pattern continues. Example: While saying "CHIN, CHIN, CHIN,CHIN," match the words with one hand touching the chin, then the other hand touching the chin, and so on, in an alternating pattern.

Level II is more challenging than Level I because of the alternating pattern. Young children who are trying to move their hands according to the *visual cue* of the leader, rather than according to the *auditory cue* of the words they are saying (SAY & DO), may find that following the visual is confusing to them. It is important to avoid requiring specific right-handed or left-handed responding from the children.

Usually Level II is performed at a faster tempo than Level I. Using the faster tempo returns children more quickly to the preferred side of their body on every other movement. This means that if the music or rhyme is organized by its macrobeat into groups of two beats, a different side is used for each of those two microbeats.

There is one exception to using microbeat for Level II: If the particular single alternating movement that you are using for the rhyme, song, or recording is rocking the whole body to one side followed by rocking the whole body to the other side, this side-to-side shifting of the body will be performed to the *macrobeat*. Compared to some other movements, rocking takes more time to complete.

Level II movement with learner SAY & DO is usually easily mastered by at least kindergarten age. However, when music is incorporated, wait until first grade to alternate the hands. Single movements matched to single words spoken in repetition create the learner SAY & DO. For example, as children say "KNEE, KNEE, KNEE, KNEE," they alternately pat one knee with the first word, then the other knee with the next word, and so on.

Teaching techniques for Level II: Some specific techniques to use in working with Level II movement are these.

1. Introduce this level in the same way as the preceding level, using the **separate** strategy of the Teaching Model. Begin with a visual demonstration of the single alternating movement, and then add the label to create SAY & DO. You can also begin with saying the word ("CHIN, CHIN, CHIN, CHIN") and have students match your words with the single alternating movement.

2. Repeat each alternating pattern of movements a minimum of eight times. Changing to a new pattern too often creates tension and lack of attention on the part of students.

3. Introduce Level II movement in the hands, with children seated. Children (even preschoolers) can also do Level II movement while standing in place. When accompanying a rhyme, song, or recording, this locomotor movement is in microbeat. The youngest children may have more difficulty attending to the movement when they are in standing position, but it is important for them to use this position for Level II to develop basic timing.

4. Grade 2 and older students can lead up to using a standing position for Level II by first "walking" alternate feet while sitting in a chair. (This step is also useful for adult learners.)

5. Give children exploration time to try out different alternating movements to their own internal time using WHISPER & DO. Suggest that children (older than kindergarten age) close their eyes for better concentration when they are doing this.

6. Give children opportunities to be leader, so they truly develop ownership of Level II movement.

7. Add instrumental music after students are comfortable with performing Level II movements using SAY & DO. Consider using *Cobbler's Reel* (RM1), *Apat Apat* (RM4), *Ziguenerpolka* (RM2), or any of the many other suitable selections on the *Rhythmically Moving* or *Changing Directions* recordings. The book *Movement Plus Music* presents additional ideas for activities involving Level II movement. Also add rhymes and songs for a challenge, once the movements are secure.

8. Use Level II movement with the echo concept that was discussed for Level I. Also note that Level II movements can be made aerobic.

Fifth-grade students demonstrate Level II, single alternating movement, by jogging in place. Using learner SAY & DO, they say "JOG, JOG, JOG, JOG" in time to their movement.

Level III(A): Sequenced Movements (two sides or one side—two movements)

Students combine two single movements into a two-movement sequence. They move two corresponding body parts (or one body part) to one location and then move them to a different location. Example: Both hands touch the knees and then touch the head (or one hand touches the knee and then the head) and the same sequence (two sides or one side) is repeated several times. The learner SAY & DO is "KNEES, HEAD, KNEES, HEAD."

Movement executed with *both* sides of the body is the easiest for children (and learners of any age) to sequence when working at this level of coordination. Through kindergarten age, children usually need to continue to use both sides, rather than one side, for the movement sequence. After that, students should perform the sequenced movement first with one side of the body at least four times, then with the other side at least four times. Level III(A) movements are more successful when performed at a relatively slow tempo.

Some children who seem to lack coordination or who are not attending to the task might perform the correct movements but do so out of timing or in reverse order (in the above example, they might struggle to match the timing of the leader and end up moving from head to knees as others move from knees to head). They may be watching the visual cue of the leader, but they are unable to respond in a coordinated manner. For these children, *watching and labeling the movements before joining in is helpful.* Unfortunately this may not help the youngest children. However, there is a **simplify** strategy using static movement that is effective for all learners, including the youngest (it is listed among the teaching techniques for this level).

Teaching techniques for Level III(A): These techniques are useful in working with Level III(A) movement.

1. Begin (and for the youngest children or learners having difficulty, continue) by using *both* sides of the body (bilateral symmetrical movement). Also use a seated position, which is easier than standing for sequenced movement.

2. Use the **separate** strategy of the Teaching Model. Either demonstrate the sequence of movements, with students joining the movement before adding the SAY & DO labels, or verbally give the two labels in repetition, whereupon students respond with movement and then follow with SAY & DO.

3. For children who are having difficulty responding quickly enough to the sequence that they see the leader doing, use the following **simplify** strategy. Begin by introducing children to the sequence as two *static* movements. That is, perform the first movement and hold it for accurate copying, and then perform the second movement and hold it. Repeat this process, adding the labels to the two static movements. Continue doing the sequence as two static movements, but gradually shorten the pause between the two parts of the sequence until you have arrived at the desired tempo.

4. Give school-aged (and older) learners exploration time to organize their own examples of two-movement sequences. Suggest that they use WHISPER & DO. They might try doing some leg sequences while seated, such as feet "APART, TOGETHER" or legs "OUT, IN" or "UP, DOWN."

5. Provide opportunities for children to be leaders, working as partners, in small groups, or with the whole class. Remind them to repeat a given sequence at least four times before switching to another sequence.

6. Set the beat with "BEAT, BEAT, BEAT, BEAT," and have students do their own two-movement sequences to the beat. This gives you a good assessment opportunity for Level III(A) movement coordination.

7. Add instrumental music after children are secure with two-movement sequences. When doing Level III(A) movement to music, the *macrobeat* should be used for each part of the two-movement sequence. For example, use the first macrobeat for "KNEES" and the second macrobeat for "HEAD." Stay with the same sequence for at least eight repetitions (16 macrobeats). Some appropriate selections are *Road to the Isles* (RM5), *Bechatzar Harabbi* (RM6), and *Bekendorfer Quadrille* (RM4); there are also other suitable selections on the *Rhythmically Moving* and *Changing Directions* recordings. Further examples may be found in the book *Movement Plus Music*.
8. Try performing the Level III(A) movements with rhymes and songs. Some children may find it too challenging to integrate speaking or singing with adding sequenced movement to the steady beat.
9. Try performing Level I, II, and III(A) movements aerobically to music. Use the *microbeat* for all levels in this case.
10. Increase the challenge by "passing" a two-movement sequence around the class. For example, one student uses SAY & DO for "KNEES, SHOULDERS, KNEES, SHOULDERS," and then each student in turn performs the same sequence two times. Also try echo movement in the same way, with each sequence performed one time before the group echoes.

Level III(B): Sequenced Movements (two sides or one side—three movements)

Students perform, in repetition, a sequence of three bilateral symmetrical movements or a sequence of three movements on only one side of the body. The sequence is made up of one movement and then a different movement performed two times. Example: Touch both knees for the first movement. Touch the shoulders two times (for the second movement and also the third movement). The learner SAY & DO is "KNEES, SHOULDERS, SHOULDERS." (A similar example would be the same movement performed in repetition, with only one hand touching the knee and then touching the shoulder twice, "KNEE, SHOULDER, SHOULDER.")

Because this three-movement pattern is more difficult than Level III(A), we recommend not introducing it until at least first grade. Some students may tend to do the *first* movement of the sequence twice, rather than the *second* movement, because this may seem easier to them. However, using a sequence made up of a distinct first movement followed by two like movements puts the emphasis on the first movement, which is the intent. For students having the tendency to repeat the first movement twice, a **simplify** strategy using static movement is presented among the following teaching techniques for this level.

Teaching techniques for Level III(B): These techniques are helpful in working with Level III(B).

1. Use the **separate** strategy of the Teaching Model. Present the three-movement sequence visually or verbally before the students begin learner SAY & DO.

This student demonstrates Level III(A), sequenced movements, for her class. To the words "SHOULDERS, KNEES," she moves both hands first to the shoulders and then to the knees.

2. **Simplify** by using static movements in first presenting the three-movement sequence. Begin by placing both hands on the knees and pausing for the first static movement, and then bring them to the ears and pause each time for each of the second and third static movements. So far, this is similar to what you did for static movement for the Level III(A) movement sequence, except that now you are holding your first movement and then holding each of the last two movements in the sequence.

   Now progress from the static movement to dynamic movement, doing the three-movement sequence in repetition, "KNEES, EARS, EARS, KNEES, EARS, EARS," and so on.

4. For a challenge, try the echo patterns or pass a three-beat movement sequence around the entire class or around a small group. In both examples, the three-beat pattern is performed two times before the echo or before the next person moves.

5. For an added challenge, use instrumental music from the *Rhythmically Moving* or *Changing Directions* recordings or accompany rhymes or songs with Level III(B) movement. Use the *microbeat* for performing movements. Examples of suitable recorded music in which the microbeat is organized in threes are *Southwind* (RM1), *Tsamiko* (CD2), and *Hole in the Wall* (RM4).

Level IV: Sequenced Movements Combined (two sides or one side—four movements)

Both sides of the body perform four movements—two sequences of two movements each, or one side of the body at a time performs two sequences of two movements, repeating the sequence at least four times before the other side begins. Example: The first two movements are extending both arms out, then bringing them in; the second two movements are extending both arms up and then bringing them down. The SAY & DO thus becomes "OUT, IN, UP, DOWN."

This level of coordination unites two sequences of Level III(A) movements to form a four-movement sequence. Though following a four-movement sequence requires increased skill and concentration on the part of students, using learner SAY & DO usually results in a high level of success. Also, it is helpful to use the **simplify** strategy by breaking the four-movement sequence into the two Level III(A) sequences and having students concentrate on the first Level III(A) sequence before the second one.

Children entering kindergarten should have the ability to match four words with four movements performed on both sides, provided that the movements are performed in a fairly slow tempo, using learner SAY & DO. For this age group, we do not recommend four-movement complexity when matching the movements to recorded music, rhymes, or songs.

Children in first grade who can perform Level IV movement with learner SAY & DO, using two sides of the body, are ready to try doing the four-movement sequence on only one side of the body first (repeating it at least four times), and then doing it on the other side of the body in the same way.

Teaching techniques for Level IV: The following techniques are effective when working with Level IV movement.

1. Begin with both sides of the body performing the sequences. When children are comfortable with using both sides, they can try using one side at a time, with at least four repetitions of the four-movement sequence on each side. Avoid specifying "right side" or "left side."

2. Introduce the sequences with students seated, before going on to four-movement sequences with students standing. Use sequences of leg movements as well as arm movements. Sequences of leg movements can be done while seated as well as while standing.

3. Use the **separate** strategy by beginning with just verbal directions or with just visual demonstration before learner SAY & DO.

4. Use the **simplify** strategy by having students practice each of the two-movement sequences before uniting them into the four-movement sequence. For example, practice movements with "KNEES, SHOULDERS" several times; then practice movements with "WAIST, HEAD" several times. Then combine them into "KNEES, SHOULDERS, WAIST, HEAD." It is also useful for students to begin with the SAY before using SAY & DO. This SAY start-up is not recommended before second grade, however.

These second-grade students demonstrate for their class the first of four movements ("UP") in a Level IV movement sequence. For younger children, using both sides of the body for Level IV is easier than using one side at a time.

5. Another **simplify** strategy is to make the four-movement sequence progress in just one direction (up or down) on the body, for example, "HEAD, SHOULDERS, WAIST, KNEES." Another example is "TOES, KNEES, WAIST, SHOULDERS."
6. Another **simplify** strategy is to use four movements that return to the same place on the second and fourth movements: "OUT, SHOULDERS, UP, SHOULDERS."
7. Give children exploration time to try out various patterns of their own, and then volunteers can share their patterns and have opportunities to lead the group.
8. Add recorded music, such as *Romanian Hora* (RM7), *Hora Chadera* (CD1), or *Ronee Bat Tsion* (CD5). There are many other suitable instrumental selections on *Rhythmically Moving* and *Changing Directions* recordings. Be sure to use the macrobeat of any selection you choose. The suggested musical selections all have ABC form (three different sections), so students can perform the first two-movement sequence on the A section of the music, the second two-movement sequence on the B section of the music, and the four-movement sequence on the final C section.
9. For an additional challenge, try performing four-movement sequences with rhymes or songs. Make it fun!

Note: As mentioned earlier, the levels discussed so far are the ones that are appropriate for children up through first grade or for beginners of any age. The next two levels, which require more complex coordination, are attainable for second grade and above.

Level V: Sequenced Alternating Movements (one side, then other side—four movements)

Students perform a two-movement sequence on one side of the body before repeating the same sequence on the other side of the body. The side that is inactive must hold still until the opposite side completes the sequence once. Example: One side performs "OUT, IN," then the other side performs "OUT, IN," and so on.

This level of movement requires students to *inhibit* movement on one side of the body; while one side moves, the other side remains in waiting position until time to move. Ability to inhibit movement, particularly for many boys, may not be reached until about age 7. Therefore Level V should be delayed until grade 2. A person without this ability will start movement on the held side too soon. Today, because of a more sedentary lifestyle, we find many more children and adults who have difficulty inhibiting movement. Experience and a supportive environment are key factors in resolving this problem.

Students are most successful with Level V upper-body movement if it is performed at a relatively slow tempo; lower-body movement, when students are ready for Level V, is most successful at a quick tempo, because of the increased demand for balance. Therefore, lower-body movement would accompany the microbeat of recorded music.

Teaching techniques for Level V: The following techniques can be used in working with Level V movement.

1. Learner SAY & DO is a useful strategy for this level of movement, as it is with all the levels. Thought and language organize the movement response for each side of the body, and learner SAY & DO helps the student inhibit movement.
2. Use the **separate** strategy to begin visually or verbally before learner SAY & DO begins.
3. As a **simplify** strategy, have students practice the movement sequence repeatedly with each side of the body before having them alternate the sequence from side to side. For example, they might do the "OUT, IN" sequence four times on each side of the body before alternating with just one sequence on each side. If they find it difficult to make the quick transition from one sequence on the first side to one sequence on the other side, have them practice doing "OUT, IN" on the first side with just "OUT" on the second

Locomotor Unanchored Foot

Older students show the first movement of a Level V sequence: "HEEL" will be followed by "STEP," and then "HEEL, STEP" will be performed with the other foot side. First try that strategy moving from one side to the other. Then try the same strategy moving from the second side back to the first side.

4. At first, do not specify "right side" or "left side." Students should choose the side they want to start with. When they are comfortable starting with the side of their own choice, begin to specify "right" or "left."
5. Upper-body sequences are easier than lower-body sequences. At first, students can try the lower-body sequences while seated in a chair. When nonlocomotor movement such as this is used, the alternating pattern is easier to establish.
6. Allow exploration time when students can develop Level V sequences to their own timing. Then students can volunteer to act as leader with their sequences.
7. Add recorded music as soon as students exhibit success with Level V sequences and learner SAY & DO. Some suitable selections are *Popcorn* (RM7), *Sun Flower Slow Drag* (RM9), and *Amos Moses* (RM8). Also add rhymes and songs. Continue to use the macrobeat with nonlocomotor movement until children are comfortable with Level V sequences.
8. For added challenge, use music organized in groups of three beats, and do a three-movement sequence on each side of the body, for example, "OUT, SHOULDERS, SHOULDERS" on one side and then "OUT, SHOULDERS, SHOULDERS" on the other side.

Level VI: Sequenced Alternating Movements Combined (one side, then other side—eight movements)

Students complete a four-movement sequence on one side of the body before repeating the same four-movement sequence on the other side. Example: One arm moves up, then to the waist, then out, and then to the shoulders to "UP, WAIST, OUT, SHOULDERS." Then the other arm moves to "UP, WAIST, OUT, SHOULDERS."

This is the most challenging of all the six levels. It requires inhibiting one side of the body throughout four movements with the other side. This means that the student's nonpreferred side must inhibit for the longest time, and when its turn to move comes, it must perform the longest sequence. This particularly means that leg sequences will be more difficult while standing because of the added demands on the body for good balance. Therefore, we recommend using a quicker tempo with the lower than with the upper body. Using a slower tempo with upper-body movements gives the student time to organize thought and action.

Beginning in late grade 2, students who have performed Level IV movements in repetition on each side of the body should find Level VI quite easy. As in Level IV, the SAY organizes the pattern cognitively before the movement is added for learner SAY & DO.

Teaching techniques for Level VI: Use these techniques when working with Level VI movement.

1. Be certain students are comfortable with Level IV patterns before attempting to organize them into alternating sequences. Also be certain students can do the four-movement sequence on each side separately.
2. Use the **separate** strategy to begin the movements, using only visual or verbal directions before start-up of SAY & DO.
3. Use the **simplify** strategy of combining two-movement sequences to form the four-movement sequence on each side of the body.
4. A further **simplify** strategy, as in Level V, is to stop one movement beyond the four-movement sequence: "UP, WAIST, OUT, SHOULDER, UP" (on the last word, students begin with the alternate side). Try this with either side as the beginning side.
5. Avoid specifying "right side" or "left side" until after students are comfortable beginning with either side of their body.
6. Provide exploration time for students to create their own sequences, and then give students opportunity to become the leader.
7. Add music such as *Sauerlaender Quadrille* (CD3) or other instrumental selections from the *Rhythmically Moving* and *Changing Directions* recordings after students are comfortable with the learner SAY & DO. Add rhymes and songs also.

Summary of Levels I–VI

As we look back over the six levels (see Insert 6.35), certain themes or generalizations emerge. For example, the first four levels, with the exception of Level III(B), are appropriate for beginners of any age, in particular, for any age up through first grade. Level III(B) should be introduced no earlier than first grade, and Levels V and VI introduce complexity that is appropriate for second grade and above.

Another generalization is that within each level, as well as from level to level, students begin with what is simple and work up to what is more complex. From level to level, this means beginning with single movements, which are easier than sequenced movements. Both between and within levels, this means that both sides moving symmetrically is easier than one side moving by itself, and both of these are easier than alternating movements. Also, nonlocomotor arm movements are easier than nonlocomotor leg movements; locomotor movements come next, followed by integrated movements. The first movements should use one area of the body at a time, either upper or lower body, rather than a combination of the two. Also within each level, movement accompanying music, rhymes, and songs follows as students gain comfort with learner SAY & DO.

Throughout the levels, students need time for individual exploration followed by time to act as leaders. Leadership can be turned over to them as

6.35

Moving in Sequences to a Common Beat
Observable Outcome: Beat Coordination

Guidelines: Single or sequenced movements are repeated.
Link each movement to a single word (learner SAY & DO process).
Repeat each sequence a minimum of eight times.
Incorporate music as appropriate.

	Level	When Using Musical Selections
I	**Single Movement (two sides or one side)** Do the same *single* movement on both sides of body for each beat. Variation: One side only for four or eight beats; then the other side.	**(Macrobeat, nonlocomotor)** **(Microbeat, locomotor)**
II	**Single Alternating Movements** Do the same *single* movement, with an alternate side of the body for each beat.	**(Microbeat)**
III(A)	**Sequenced Movements (two sides or one side—two movements)** Both sides sequence the same two movements. Variation: One side sequences two movements a minimum of four times; other side repeats the sequence.	**(Macrobeat, nonlocomotor)** **(Microbeat, locomotor)**
III(B)	**Sequenced Movements (two sides or one side—three movements)** Both sides sequence the same three movements (second and third movements are the same). Variation: One side sequences three movements a minimum of four times; other side repeats the sequence.	**(Microbeat)**
IV	**Sequenced Movements Combined (two sides or one side—four movements)** Two sides of the body sequence four movements (two Level III sequences combined). Variation: One side sequences the four movements at least four times; other side repeats the sequence.	**(Macrobeat, nonlocomotor)** **(Microbeat, locomotor)**
Note: Levels V and VI are for second grade and above.		
V	**Sequenced Alternating Movements (one side, then other side—four movements)** Sequence two movements on one side, then sequence the same two movements on the other side. Repeat the alternated sequence. *Note:* Locomotor movements are performed more easily at a quick tempo.	**(Macrobeat, nonlocomotor)** **(Microbeat, locomotor)**
VI	**Sequenced Alternating Movements Combined (one side, then other side—eight movements)** Sequence four movements on one side, then the same four movements on the other side. Repeat the combined alternated sequences. *Note:* Locomotor movements are performed more easily at a quick tempo.	**(Macrobeat, nonlocomotor)** **(Microbeat, locomotor)**

early as preschool, with children volunteering to lead when they are ready. The more the teacher steps aside in this way, the less students will rely on the adult for a visual model and the more they will develop ownership of concepts. Also, when leading, teachers do not stress "correct" side according to right/left, mirroring, or reversal.

Teachers can and should vary their methods of introducing the six levels, frequently using partner and small-group work. Though the levels are presented here in a one-at-a-time, step-by-step manner, this does not mean that students encounter them in exactly that way. Work logically, but not methodically, from level to level. In other words, work *among* the few levels where the students are most comfortable, perhaps moving back a level or two now and then and adding a new challenges to create new ownership at a simpler level. Some additional ideas for challenges are listed here:

Students need time for individual exploration of the Levels of Beat Coordination. After some individual exploration, this boy may decide to lead the other students and the teacher in one of the levels of movement, using a movement sequence that he has created.

- Combine a Level I movement with a Level II movement. For example, pat the legs with both hands (Level I), then pat each leg one time with the corresponding hand (Level II). The learner SAY & DO could be "PAT, LEG/LEG." The pat with both hands would be on the slow beat, and the one pat on each leg, on the quick beat. Try a similar challenge with foot patterns also, with the words "JUMP, RUN/RUN."
- Extend the previous suggestion in this way. Do a single pat on one leg after the two-hand pat, then return to the two-hand pat, followed by a single pat on the other leg ("BOTH, ONE, BOTH, OTHER"). In locomotor movement, a similar pattern would be "JUMP, HOP, JUMP, HOP," with the two hops being on opposite feet.
- Try a Level IV movement that uses the upper body for the first two beats and then the lower body for the second two beats. The learner SAY & DO might be "OUT, IN (arms); APART, TOGETHER (legs)."
- While seated, combine a Level III movement in the arms with a Level III movement in the legs (integrated movement). The arms and legs might move to "STRAIGHTEN, BEND" at the same time. See Chapter 5 for strategies for combining arms and legs.
- Combine arms and legs while standing. The legs move to "HEEL, STEP, HEEL, STEP" (Level V alternating movement) while the arms move to "OUT, IN, OUT, IN" (Level III movement with both sides at once). "OUT, IN, OUT, IN" can be tried first on the same side as the "HEEL, STEP, HEEL, STEP" (ipsilaterally) and then on opposite sides (contralaterally).

Summary of Moving in Sequences to a Common Beat (Insert 6.36)

6.36

Summary of Moving in Sequences to a Common Beat

Observable outcome:
Beat coordination

Concepts included:
Levels of beat coordination
Four-Step Language Process
Single movement
Alternating movement
Sequenced movements
Alternating sequenced movements
Macrobeat and microbeat movement to rhymes, songs, musical selections

Beat coordination, the observable outcome of this key experience, is achieved as students progress through the six levels of movement that were summarized in Insert 6.35.

Ideally, students can develop beginning ownership of Levels I–IV before they enter elementary school; they should be able to use them comfortably by the end of first grade. In first grade, children work with the variations of one side . . . other side repetitions, which prepare them for Levels V and VI. These last two levels are not introduced until second grade, to give time for students' motor coordination to develop to a point that permits them to inhibit movement.

The most powerful strategy we can give our students is the ability to use learner SAY & DO. This cognitive-motor link permits increased concentration and unlocks the potential to respond to movement that is visually demonstrated or presented with verbal directions.

Beat coordination, along with **basic timing,** which was the outcome of the preceding key experience, is necessary for participation in many areas of the High/Scope K–3 Curriculum as well as in areas of all K–3 curricula, and throughout life. Any task that requires accurate timing appears to depend on the outcomes of these two key experiences.

When students show comfort, awareness, and understanding and have ability to apply each of the nine movement key experiences, you can be sure that *the foundation has been built*—that *education through movement* has accomplished its goals. Your students

- Will truly be **engaged** in learning
- Will be **enabled** not only in movement but in all areas of the curriculum
- Will have **extended** their movement skills toward movement and timing proficiency

Students achieving all of these outcomes will have learned to move so they can move to learn.

ENDNOTES

[1] E. Gordon, *Learning Sequences in Music* (Chicago: GIA Publishing, 1984), Chapter 4.

[2] P. S. Weikart, "Movement Curriculum Improves Children's Rhythmic Competence," *High/Scope Resource,* Vol. 6, No. 1 (Winter 1987), pp. 8–11.

Chapter 7

Active Learning Involving the Movement Key Experiences

I hear and I forget;
I see and I remember;
I do and I understand.

Chinese proverb

The active learning experiences presented here are based on the **K–3 movement key experiences** introduced in Chapter 3, which are listed on the following page (see Insert 7.1). Thorough explanations for the broad categories of these essential experiences may be found in Chapter 4 ("Engaging the Learner"), Chapter 5 ("Enabling the Learner"), and Chapter 6 ("Extending the Learner").

The 80 activities contained in this chapter provide ideas for guiding students' understanding and for helping them develop ownership of the skills and concepts implicit in the movement key experiences. As you use the suggestions these activities contain for teacher-initiated active learning experiences, watch for opportunities to support child-initiated learning as well. We hope our suggestions will give you a way to *begin* to work within the framework of the movement key experiences.

For ease of use, the activities are numbered from 1 to 80 throughout the chapter, and a grade-level interval is suggested for each activity. (See Appendix E for an alphabetical index of the activities.) The **active learning approach** and the **Teaching Model** of the "Education Through Movement" program are incorporated throughout the activities.

Each activity contains the following elements:

- *Grade:* The earliest K–3 grade suggested for the activity is stated. However, each activity and/or suggested extension of the activity may be presented to older or younger learners as well, provided that age-appropriate strategies and examples are used.
- *Key Experiences:* The movement key experiences most central to the activity are listed. The key experiences *enabling the learner* are listed first. Almost every key experience is involved to some degree in every activity or in its extensions.
- *Curriculum Concepts:* The concepts listed may be movement, physical education, or music concepts as well as concepts from other curriculum areas. The list is indicative of the secure foundation for learning that a comprehensive movement program builds.

7.1

Key Experiences in Movement

Key Experience	Observable Outcome
Engaging the Learner	
🔑 Acting upon movement directions	Aural, visual, and tactile processing; attending; concentrating
🔑 Describing movement	Thinking ability and language use
Enabling the Learner	
🔑 Moving in nonlocomotor ways	Comfort with and awareness of anchored movement in personal space
🔑 Moving in locomotor ways	Comfort with and awareness of nonanchored movement in personal and general space
🔑 Moving in integrated ways (Grade 2 and above)	Comfort with and awareness of purposefully combining nonlocomotor and locomotor movements
🔑 Moving with objects	Comfort with and awareness of combining objects with nonlocomotor, locomotor, and integrated movement
Extending the Learner	
🔑 Expressing creativity in movement	Extending movement by using one's own ideas
🔑 Feeling and expressing	Basic timing
🔑 Moving in sequences to a common beat	Beat coordination

- *Description:* A brief description of the activity is given in boldface type.
- *Activity to Experience:* Steps to follow in presenting the activity are suggested. You may wish to omit some steps or to include others not listed, depending on the environment and ability levels of your students. We urge you to include the exploration phase of the activity when it is given.
- *Facilitation and Reflection:* This section contains sample questions for you to pose. The specific questions you use, of course, will depend on the age and experience of your students. Including these questions is based on our philosophy that *thought* and *language* must be added to action to help children reach true ownership of movement skills and concepts.
- *Extensions:* These include suggested ways to modify or simplify the activity to make it applicable to older or younger students. There are also suggestions for extending the activity into other curriculum areas.

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Some of the practical guidelines mentioned earlier in this book are particularly appropriate to review before implementing the activities in this chapter:

1. Devise ways for students to be as inconspicuous as possible. Many learners, particularly older learners, prefer first trying nonlocomotor or integrated movement or movement with objects while they are seated in chairs. Some learners feel inconspicuous if they can practice behind a chair or behind another person. With all types of movement, having students stand in a loose formation rather than a circle generally provides a safety net in this regard.

2. Initiate movement without reference to specific sides of the body (right or left). If a particular movement involves using or beginning with only one side of the body, refer to it as "one side" or the "favorite side" or "either side." Then be sure students also try the movement with the other side. Alternating movements can begin with either side.

3. Try to avoid posing movement problems that have a definite "right" and "wrong" solution. Students' initial exploration should involve doing a movement in the way they choose to do it. Correctness should not be required before trial and error have taken place.

4. Introduce movement experiences in personal space before using general space. Even many locomotor movements, such as jumping and hopping, can be performed in personal space before they are done in general space. This gives students a chance to develop the balance and coordination required by the movement.

5. Save partner work and small-group work for later. Many students are uncomfortable with purposeful movement at first. Having a partner or being in a small group is intimidating until after they have had a chance to explore a movement on their own.

6. Use movement and creative representation experiences that are age-appropriate. Patting parts of the body such as the head, chin, or ears is appropriate for younger children but may seem inappropriate for older learners. Younger children delight in moving in ways that represent events or animals, but older learners usually do not.

7. Begin creative movement experiences with some aspect of problem solving first. Please refer to the discussion of *expressing creativity in movement* in Chapter 6.

8. Give students time to "try a movement on for size" before asking them to do it together with others, to a common beat. Students need to move to their own internal timing to develop comfort with a movement before they synchronize with the movement of other students.

9. Introduce action songs and similar active learning experiences by presenting the movement first. When children are successful with the movement, layer on the rhyme or song.

10. Finally, as you use the activities in this chapter, keep in mind that you should also be participating and deriving increased understanding

about students' abilities. If we wish to be partners with students in their learning, we must first understand their *existing capabilities*. Then we can create opportunities for them to work with content, to use purposeful movement to develop an active learning base, and to experience concepts in various ways. We help students to take responsibility for their learning by asking them to work cooperatively with others, by encouraging them to make choices, by facilitating their thinking, by giving them the language to talk about movement, and by reflecting on experiences with them.

When active learning experiences are naturally undertaken and accompanied by teacher-facilitation, children are able to both understand and apply the concepts involved.

Active learning experiences + facilitation = ownership.

1

Creativity With Scarves

Kindergarten and above

Key Experiences:

- **Moving with objects**
- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Expressing creativity in movement**

Curriculum Concepts:

Decision-making
Creativity
Awareness of personal space
Awareness of general space

Each child has a scarf to use for nonlocomotor or locomotor movement. Children explore movement with their scarves. They move their scarves in personal space and then in general space with or without music playing.

Materials:

A scarf for each child
Optional: Record, tape, or compact-disc player and a recording of one of the slower selections on *Rhythmically Moving* or *Changing Directions*, such as *Gaelic Waltz* (RM1) or *At Va'ani* (CD1)

Activity to Experience:

Each child selects a scarf and explores nonlocomotor (anchored) movement in personal space. Music is added if desired.

While most of the children use the scarves in their personal space, several others move in general space, traveling between and around those in personal space. Several of the children's ideas may be noted, and other children may wish to try out those ideas.

All the children move in general space when they are ready to do so, watching that they do not bump into others. Music is added as desired.

Facilitation and Reflection:

When you were in your own personal space, what did you like to do with the scarf? (If children are unable to describe what they did, this provides an opportunity for the teacher to comment on what they were doing.)

Did you move your scarves in a different way when you moved about the room? How was it different?

How might you move if you had paper plates or beanbags in your hands? How would your movements be different? (Ask second-graders and above.)

Have you ever seen anything that moves like the scarves?

Extensions:
Older students: Interact with partners while using the scarves. (They are not connected to their partners.)

Older students: Join together in a group by each holding one end of a scarf while another person holds the other end. All move while connected in this way.

Older students: Small groups each create a movement score to one of the musical selections and then share their scores with the whole class. A class creative dance is choreographed using the input from the small groups of students.

The students may suggest other objects, such as paper plates, which can be used for creative movement. (See Activity 44.)

2

Explore That Sound

Kindergarten and above

Key Experiences:

- **Moving with objects**
- **Expressing creativity in movement**
- **Describing movement**

Curriculum Concepts:

Making sounds
Identifying sounds

Children explore ways to make sounds with bobbins, sticks, and other objects found in the classroom. They discuss the sounds produced.

Materials:

Bobbins (sometimes called quills), rhythm sticks, beanbags, and paper plates (or other sound-producing objects)

Activity to Experience:

Children are given a pair of bobbins, sticks, or other objects; they then explore the sounds made by hitting or rubbing the objects together or by contacting their body with the objects.

Children share different sounds they discovered. Class members copy the way the child leader makes the sound.

Children are engaged to talk about the sounds and to make comparisons with sounds they have heard before.

Facilitation and Reflection:

How did you make your sounds? Describe the movement you used.

Was anyone's sound a soft sound? A loud sound? How did you make it loud or soft?

How was Sally's sound different from Megan's sound? Was there anything about Tony's sound that was the same as Nathan's sound?

Are there objects at home that could make sounds? What would you do to make the sound?

Extensions:

Guide the children to create patterns with the sounds, such as two taps of the sticks followed by two rubbing motions.

Help the children choose nonlocomotor or locomotor movements to accompany the sound for as long as the leader makes it.

Use other objects, such as paper plates or unpitched percussion instruments (drums, maracas, finger cymbals), for sound exploration.

Play a mystery sound game. The leader chooses the object and makes the sound out of sight of the others. They guess what object is making the sound.

Explore sounds the voice can make.

See Activity 60 for additional ideas to use with sounds.

3

Gallop All Around

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Feeling and expressing steady beat**
- **Acting upon movement directions**

Curriculum Concepts:

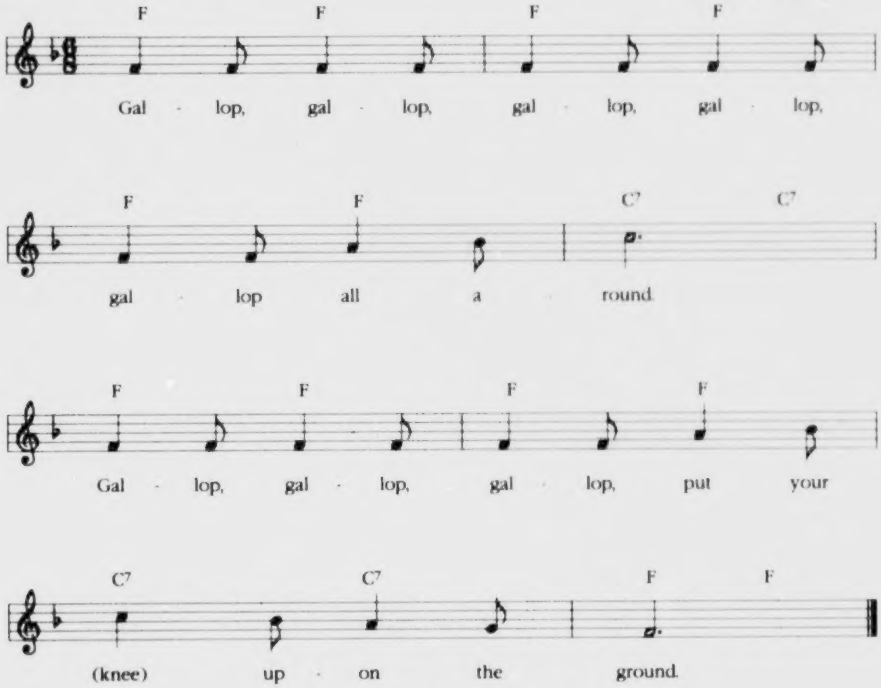
Locomotor movement
General space
Steady beat
Combining song and movement
Aural responding

Children decide on the movement, perform it to the steady beat of the song, and follow the sung directions at the end of the song.

Materials:

Gallop All Around

Folk Song
Adapted by Phyllis S. Weikart


F F F F
Gal - lop, gal - lop, gal - lop, gal - lop,
F F C7 C7
gal - lop all a - round.
F F F F
Gal - lop, gal - lop, gal - lop, put your
C7 C7 F F
(knee) up - on the ground.

Activity to Experience:
Children recall and do several of the fundamental locomotor movements (nonanchored movements) in general space, such as walk, jump, hop.

One child (Janelle) selects a locomotor movement (gallop) that the class tries to do together. The child leader begins the movement, and the teacher says the **anchor word** "GALLOP" in time with the leader's steady beat, attempting to bring all children into the same timing as the leader.

The song *Gallop All Around* is added to the movement. Janelle has selected the movement, in this case the gallop, and also secretly tells the teacher what body part she would like to put on the ground at the end of the song. Janelle begins galloping, and the others follow. The teacher uses the **anchor word** "GALLOP" eight times and then begins the song. In the diagram below, X represents the steady beat.

X	X	X	X	X	X	X	X
gallop	gallop	gallop	gallop	gallop	gallop	gallop	gallop

At the end of the song, the teacher sings "Put your knee upon the ground," the body part selected by Janelle.

Another child is the leader selecting the action and what body part to put on the ground. The song is altered to fit the selections made by the new leader.

Facilitation and Reflection:
How did you stay with the beat of the song?

Janelle, why did you choose your knee to put on the ground?

How did you keep your balance at the end of the song?

What other songs have we sung with movement added?

Extensions:
Use nonlocomotor movements in place of the locomotor ones.

Draw from a list of movements the children have created, and end with "Balance three body parts on the ground."

The child leader sings or speaks the directions at the end of the song.

4

Going Around Our Hoops

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Moving in nonlocomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Around, into, out of

Children explore different ways to move *around* the outside of their hoops and share their ideas. They also explore ways to move *into* and *out of* the hoop. They respond to the directions sung.

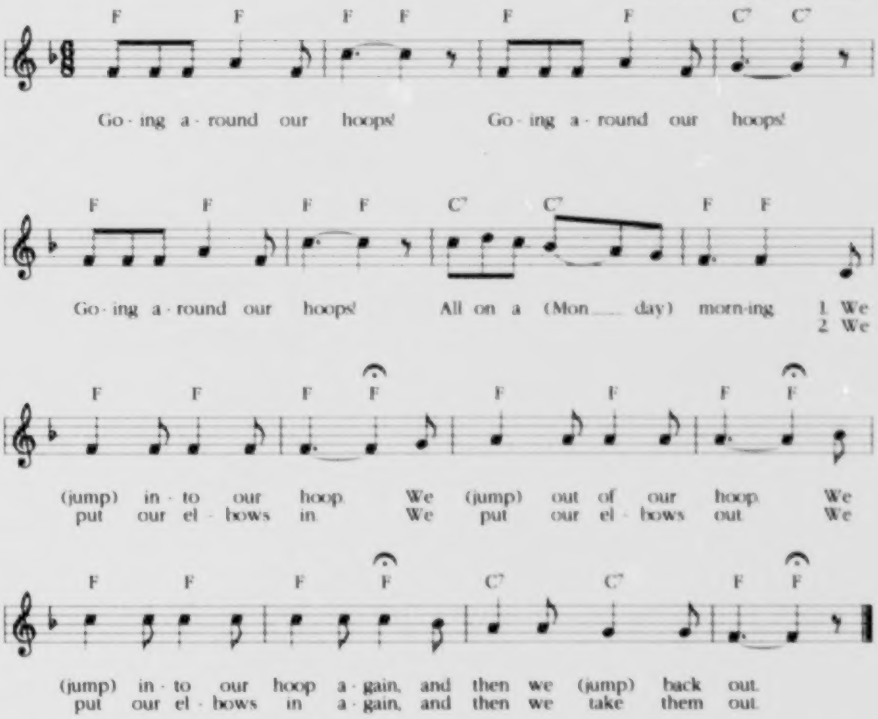
Materials:

One hoop or ring for each child (carpet squares or geometric shapes as substitutes)

Going Around Our Hoops

(Looby Loo)

Adapted by Phyllis S. Weikart


F F F F F F C7 C7
Go - ing a - round our hoops! Go - ing a - round our hoops!
F F F F C7 C7 F F
Go - ing a - round our hoops! All on a (Mon___ day) morn-ing 1. We 2. We
F F F F F F F F
(jump) in - to our hoop. We (jump) out of our hoop. We
put our el - bows in. We put our el - bows out. We
F F F F C7 C7 F F
(jump) in - to our hoop a - gain, and then we (jump) back out.
put our el - bows in a - gain, and then we take them out.

Activity to Experience:
Children try different ways to travel with locomotor movement around the outside of their hoops and share their ideas with the class.

Children try different ways to use locomotor movement to get into and out of their hoops. They share their ideas. They also move different parts of their bodies into and out of the hoop.

One child is the leader and all follow. If common beat is desired, the teacher uses that child's traveling beat for the **anchor word** spoken eight times before the song is added in the same tempo. (See Activity 3 for an example of an anchor word.) On the second part of the song, different children have preselected how to go into and out of the hoop or what body part to put into and out of the hoop. *Note:* To assess children's auditory responding ability, the teacher may wish to sing the directions for the second part without preselecting the movements. Encourage children to join in singing the song as they are able to do so.

Facilitation and Reflection:
How are you traveling around your hoops? What does it mean to go around?

Did Dale travel differently than Bob did? How was it different?

What movements were easiest to keep in the steady beat?

What movements did you use to get into the hoops? To get out of the hoops? Were your movements in and out the same or different?

Extensions:
All the children may travel in their own way around their hoops while the song is sung. The adult can use "BEAT" as the **anchor word** that children are encouraged to match with their movements.

The children may decide to travel around the room rather than around one hoop and then may find a hoop for the second part of the song.

Nonlocomotor (anchored) movements may be used inside the hoop for the first part of the song, and then locomotor movements may be used to go into and out of the hoop.

See also Activity 19.

5

If You're Happy

Kindergarten and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Acting upon movement directions**
- **Expressing creativity in movement**

Curriculum Concepts:

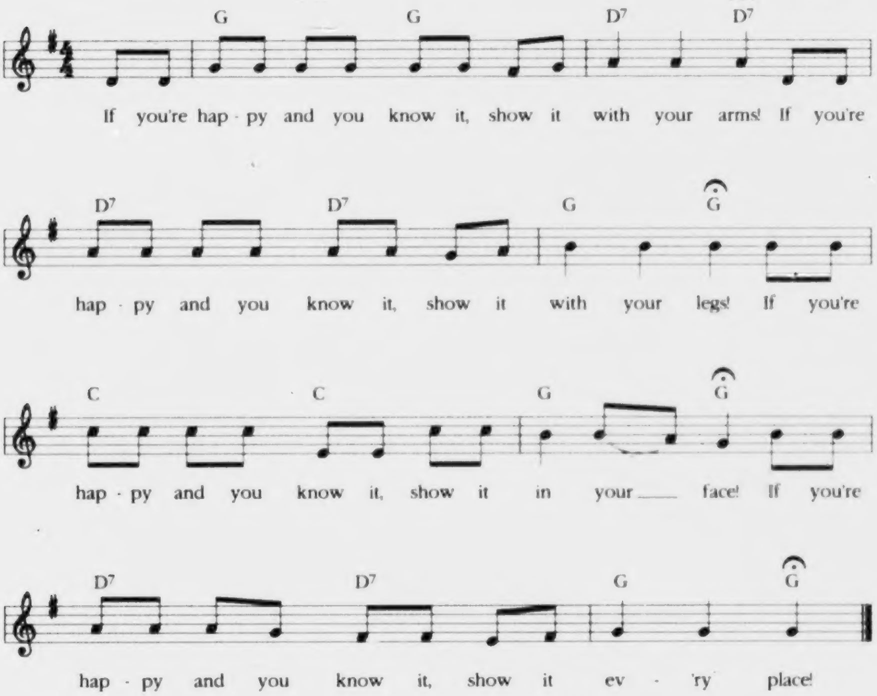
Demonstrating the meaning of a word
Musical phrases

The children explore ways to show the concept of happiness in their arms, legs, face, and every place. They respond to the song's directions.

Materials:

If You're Happy (Variation)

Traditional


G G D7 D7
If you're hap - py and you know it, show it with your arms! If you're
D7 D7 G G
hap - py and you know it, show it with your legs! If you're
C C G G
hap - py and you know it, show it in your ___ face! If you're
D7 D7 G G
hap - py and you know it, show it ev - 'ry place!

Activity to Experience:
Children are encouraged to explore many ways to show happiness with movement.

Children talk about the word "happy" and what makes them happy.

Several children volunteer to share how they made different parts of their body show happiness.

The teacher prepares for the action song. The children show happiness in their arms, then their legs, then their faces, and finally all over (every place).

The teacher sings the song and pauses at the end of each phrase for the children to respond.

The action song is extended to have the children choose the body part to be used for each phrase.

Facilitation and Reflection:
What movements can show we are happy?

What does it mean when we say we are happy?

When Sylvia made her arms look happy, how was it different from Joseph's way to make his arms look happy?

How did we know when to show happiness in the song?

Extensions:
The children initiate other ways to show happiness, such as with their voices or with specific ways to travel about the space.

The meanings of other words, such as "sleepy" or "angry," may be chosen for movement exploration.

Older students might be given the problem of showing right angles (or any angles) with arms, legs, waist, or "some other place."

If you're happy and you know it, show right angles with your arms.
If you're happy and you know it, show right angles with your legs.
If you're happy and you know it, show right angles at your waist.
If you're happy and you know it, choose another place.

6

Low or High

Kindergarten and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

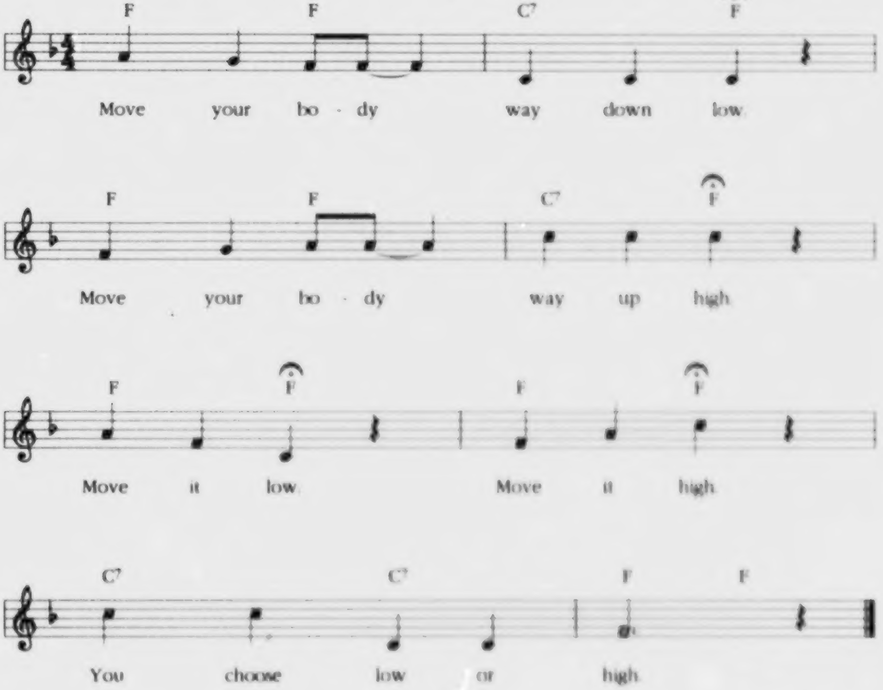
Low and high levels
Low and high vocal sounds

Children work with the concepts of *low* and *high* by moving their bodies or parts of their bodies to these levels. They add low and high vocal sounds. They respond to the song's directions.

Materials:

Low or High

Phyllis S. Weikart


F
F
C7
F
Move your bo - dy way down low
F
F
C7
F
Move your bo - dy way up high
F
F
F
F
Move it low Move it high
C7
C7
F
F
You choose low or high

Activity to Experience:
Children are encouraged to move their bodies to a low level and then to a high level. In each case, they identify where their bodies are placed. They add low and high voice sounds to match the body levels.

Children make a statue shape at a low level and at a high level.

The song is sung and children respond to the song's directions.

Children are encouraged to think of body parts that can be placed low or high. For example, they may choose to solve the problem of how to place their feet at a high level.

Facilitation and Reflection:
What can you say about a low level? A high level?

Describe your low-level statue shape. Your high-level statue shape.

How can you move your feet to a high level?

In our classroom what do we see at a low level? At a high level?

Extensions:
Use the concept of *middle level* for movement exploration.

Move with objects held at low and high levels.

Travel about the space with various parts of the body at low or high levels.

Also see Activity 14.

7

Musical Houses

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Steady beat
Awareness of general space
Moving to music

Children use objects placed around the space as their "houses." They move in locomotor ways about the space when the music is playing and find a "house" when the music stops.

Materials:

Objects for children to stand on or within, such as hoops, geometric shapes, carpet squares
Record, tape, or compact-disc player
Instrumental selection from *Rhythmically Moving*, such as *Old Joe Clark* (RM1), *Happy Feet* (RM1), *Sneaky Snake* (RM4)

Activity to Experience:

Children explore ways to travel about the space without bumping into others or stepping on a "house." When the leader says "stop sign," all find a "house." To simplify the space-awareness task, begin with a few children moving at once.

Children step in place to the beat of the music, then travel about the space to the music. *Note:* The younger children may not feel the beat or be able to keep it while traveling about the space. (By second and third grade, you should see far more accuracy.) When the music stops all find a "house." All are encouraged to help others find the unoccupied "houses."

When the activity is repeated another day or continued the same day, a few "houses" are removed. Any child without a "house" is invited into another child's "house." No child should sit out, as in the traditional game of "Musical Chairs." Those pairs of children occupying particular "houses" together now travel as pairs, perhaps elbows touching.

Facilitation and Reflection:

What locomotor movements did you use to travel to the music? Were some movements easier to use to stay in the beat?

How did you keep yourself from bumping into others or stepping in other houses?

What ways did you and your partner find to travel together after you ended up sharing a house?

Extensions:

The leader suggests a locomotor movement for all to use.

The leader may also suggest an extension for the locomotor movement, such as marching with heavy feet.

Chairs may be used instead of the hoops or shapes or squares. Chairs are placed randomly about the space rather than in a row. Each person finds a chair or joins a partner on a chair.

8

Names in Beat

Kindergarten and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Steady beat
Accented syllables of names

Children rock the steady beat while seated in a circle, as they speak the first names of children in the class. Each rocking motion occurs on the accented syllable of a name.

Materials:

None

Activity to Experience:

Children are seated in a circle. They begin a rocking motion, and match the word "ROCK" with their motion.

Several children volunteer to speak their names as they are *naturally spoken*. They start the rocking, the teacher says the **anchor word** "ROCK" at least four times, and each child leader in turn adds his or her name spoken four times. The endpoint of each rocking movement matches the accented syllable if a name has more than one syllable. In each of the following names, the normally accented syllable is underlined:

Er-ic
Tim-othy
E-liz-abeth

Ni-cole
Cas-san-dra
Alex-an-der

After several names are tried, the class may wish to recite two (or more) names four times each, without stopping between the different names.

Children may suggest saying the various names two times each or one time each.

Facilitation and Reflection:

What does it mean to move in steady beat?

What does it mean to rock to the beat?

As we said Eric's name, when did the rock occur? (Ask the same about each of the other names used.)

Where would the rock occur on other words we know?

Extensions:

Sing the name on one pitch. Change the pitch with each additional name.

Rock and say each student's name one time. At first put one silent rocking motion between saying each name. Then try to change the name on each rock.

Make a chart of all the names with one syllable, two syllables, etc.

Sequence the names that children say by the number of syllables in each: Begin with a one-syllable name, then a two-syllable name, and so on.

Sequence the names by the placement of the accented syllable: Begin with names that have the accent on the first syllable, then those with the accent on the second syllable, and so on.

Also see Activity 25.

9

Stop Sign

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**
- **Describing movement**

Curriculum Concepts:

Space awareness
Time awareness—start and stop

Children explore locomotor movement as they travel about the space. They stop, without falling down, when the leader says the words "stop sign."

Materials:

Locomotor movement menu written on a large sheet of cardboard (at the right)
Optional: A cutout circle that is red on one side, green on the other side

Locomotor Movement Menu

walk run
march tiptoe
jump hop
gallop slide
skip

Activity to Experience:

Children are encouraged to find different ways to travel about the space by each selecting a locomotor movement from the menu. Several children volunteer to show how they are moving, and the others copy.

Children are encouraged to plan the way they are going to travel, to recall it afterward, and to describe different ways they were moving.

One child is the leader. That child says the word "go" (or shows the green side of the circle), and all travel about the space. When the child says "stop sign," or shows the red side of the circle, all stop and freeze.

The activity is continued with a new leader. The new leader may be encouraged to demonstrate a locomotor way to travel that all copy.

Facilitation and Reflection:

What are some of the locomotor movements you used to travel about the space?

Who would like to tell us how you were moving? *Note:* If a child cannot use words to describe a movement, the teacher can ask others to describe the movement, or the teacher can comment on the movement.

What did you do to keep yourself from falling down when you heard the words "stop sign"?

What did you do to keep yourself from bumping into other children?

What are some other times when we might have to stop to keep from bumping others?

Extensions:
The leader demonstrates or tells the group how to move.

The leader suggests not only the movement (march) but also the extension (with small steps).

The leader chooses a position for each person to balance in when they stop. (See Activity 36.)

10 Thumbs Go Wiggle Waggle

Kindergarten and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

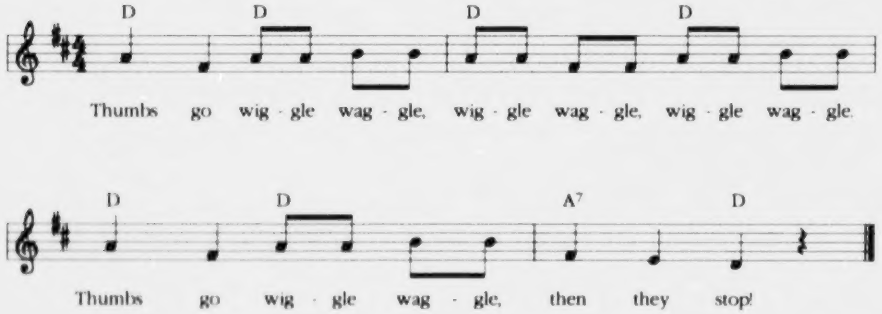
Action words
Aural responding

Children are encouraged to follow the teacher, who is wiggling both thumbs in front of the body. Children find other positions in which to wiggle their thumbs, as well as other parts of their body that they can wiggle. All respond to the song's directions.

Materials:

Thumbs Go Wiggle Waggle

Phyllis S. Weikart


D D D D
Thumbs go wig - gle wag - gle, wig - gle wag - gle, wig - gle wag - gle.
D D A7 D
Thumbs go wig - gle wag - gle, then they stop!

Activity to Experience:

The teacher wiggles both thumbs in front of his or her body and encourages the children to copy. The action is labeled "wiggle waggle."

The song is added to the action.

Children are encouraged to find other places to wiggle waggle their thumbs, such as to the side, behind their back, under their knees or chin, over their head.

Other body parts are chosen to wiggle waggle, and the song is altered to fit the name of each body part.

Children suggest other action words and add a silly second word to each (such as "jiggle giggle").

Facilitation and Reflection:

What are your thumbs doing when they wiggle?

Where were some of the places you wiggle waggled your thumbs?

What other body parts were easy to wiggle waggle? Hard to wiggle waggle?

Are there other things you have seen wiggle?

Extensions:

Work with partners to create common actions.

Make a list of movement words with rhyming words attached.

11

Traveling Pathways Between Objects

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Pathways
Space awareness relationship—between

Pairs of objects are placed in a pathway about the space. Children follow the pathway, traveling *between* each pair of objects.

Materials:

Pairs of bobbins (8-inch quills) or other objects that can be set up in pairs, such as cones, paper cups, etc.

Activity to Experience:

The pairs of cones (or other objects) to be used are set up about the space to create a pathway for traveling. The space between each pair of cones should be wide enough for the child to travel through easily. Different pathways are explored.

Children explore different ways to travel between the cones without knocking them down.

Children volunteer to be the leader. The followers travel in the same way the leader is traveling.

The pairs of cones may be placed closer together, creating a narrower pathway to provide more challenge.

Facilitation and Reflection:

Describe how you traveled between the cones.

What did you have to think about so your feet didn't hit the cones?

What ways were easiest to travel when the cones were close together?

What type of pathway was the easiest to travel? Why?

What other things do we travel between? (doorway, slats in a fence, tables in the classroom)

Extensions:

Objects are set up by learners in three pathways (straight, curved, and zigzag). Three sections of the room are used for three groups of students. Each group takes one of the pathways *and explores ways to travel. Groups change* stations, so all explore the three pathways. The three groups talk about the different ways they liked to travel on the three pathways.

Other concepts, such as ***around*** and ***over*** or ***outside*** and ***inside***, may be substituted for the concept of ***between***. Children demonstrate the concept with the object. For additional experience with spatial concepts, see Activity 19.

Bobbins or other single objects may be placed in a pathway. The children travel so one leg steps on each side of the object and the object is ***between*** the legs.

12

Attributes of Shapes

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Attributes of shapes
Same and different

Children travel to the shape that has the attribute given. They place a designated part of their body on that shape.

Materials:

For each child, one geometric-shape cutout (with a nonskid surface) that is large enough to stand on

Optional: Record, tape, or compact-disc player and the recording of *Peat Fire Flame* (RM2)

Activity to Experience:

Shapes are placed about the space, and each child chooses a shape and stands on it. *Note:* They have had a prior discussion about the shapes and their attributes.

Children move about the space in the way selected by the child leader. When the leader says "stop sign," all return to a shape like the one they were on originally. Various children volunteer to each say one thing about their shape.

Children now go to a different shape than the one originally selected and each volunteer to say one thing about this new shape.

The activity continues with the leader saying "stop sign" and then describing one attribute of a shape (e.g., "It has four corners"). The leader also selects a body part to put on that shape (e.g., an elbow). Children travel to a shape that has the described attribute (four corners) and place the selected body part (their elbow) on it. (Several children will be on one shape.)

Facilitation and Reflection:

What do you notice about the square? (four sides of equal length, four corners) About the rectangle? About the triangle?

How did you know you returned to a shape that was the same as the one you started on? How did you know you returned to a different shape?

What helped you find the shape the leader described?

Are there any other shapes in this room that are the same as those we had on the floor? (chalkboard, doorway, window panes)

Extensions:

The recording of *Peat Fire Flame* may be played. The children move about the space to the beat of the music. When the music stops, they freeze, then respond to the leader's directions for shape attribute and body part.

If the shapes have different colors, the group can respond to color rather than to shape attributes.

Letters may be used instead of geometric shapes. For example, a child might look for a letter that has all curved lines (S), all straight lines (T), or a combination of curved and straight lines (D).

13

Listening and Identifying

Kindergarten and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Describing movement**
- **Acting upon movement directions**

Curriculum Concepts:

Responding to verbal directions
Planning
Speaking without showing
Space awareness—direction
Pointing

Children engage in a game of pointing with specific body parts to locations selected and described verbally by the leader.

Materials:

None

Activity to Experience:

Children explore pointing to various areas of the room with different parts of the body—with their elbow, thumb, toes, knee, etc.

Children are asked to think about what body part they would choose and where that body part should point. Then they see if they can verbally describe (not demonstrate) what they want someone to do.

Volunteers give the class verbal directions for pointing with designated body parts to various locations in the room.

Facilitation and Reflection:

What parts of your body did you find you could use for pointing?

What do you have to think about when you only tell, and don't show, what you want someone to do?

How did you know what your leader wanted you to do?

What are some other times when we should tell rather than show someone what we want them to do?

Extensions:

Travel with locomotor movement, leading and pointing with a body part.

Sing or speak the directions, and also have the class identify whether the directions were sung or spoken. (Please refer to *Foundations in Elementary Education: Music*, pp. 212 and 235.)

A child points, using visual demonstration. The class identifies what body part is pointing and tries to determine where the leader is pointing.

Give children other opportunities to plan and give their classmates verbal directions to follow for nonlocomotor or locomotor movement.

Children lead the stages of movement for response with verbal directions.

14 Lively Levels

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Describing movement**

Curriculum Concepts:

Kinesthetic awareness
Thinking and language
Space awareness—levels

Children explore levels for locomotor movement. While they are moving about the space, they talk about the levels they are using and what their bodies are doing to achieve those levels.

Materials:

None

Activity to Experience:

Children are engaged in a discussion about space awareness with the extension *levels*. (They have been introduced to levels with nonlocomotor movement prior to this experience.)

Children explore traveling in high, middle, and low levels. They are encouraged to talk about the locomotor movement they are using and the level represented.

Children volunteer to share their movements. The class members try out each leader's idea and talk about it, comparing and contrasting the various ideas presented.

Facilitation and Reflection:

What do you remember about using levels for nonlocomotor (anchored) movement?

What did you discover about the levels as you were exploring locomotor (nonanchored) movement? Some of you were marching and others were tiptoeing and galloping.

How are you showing a low (medium, high) level with your movement? What does your body do to show these levels?

How was Amanda's *low* level different from Troy's *low* level?

What are some other times when you might move at different levels? (walking through a low doorway, jumping on a trampoline, getting into a car, climbing over a fence)

Extensions:

Use the levels with nonlocomotor movement in different body positions. Also see Activity 6.

Identify the levels when catching a ball.

Have the children plan their movements and the level they will use.

Make a list of nonlocomotor and locomotor movements that can be performed easily at the three levels.

15

Planning to Step

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Describing movement**

Curriculum Concepts:

Planning
Kinesthetic awareness
Space awareness—size of movements

Children explore locomotor movement with various-sized walking steps, jumps, hops. They think about what they are going to do (make a plan) before they begin and verbalize their plan. They share their plan and action for others to copy.

Materials:

None

Activity to Experience:

Children explore locomotor movements using different sizes of those movements—big, medium, or little. Several volunteers share their ideas.

Children are encouraged to think about the movement and the size of the movement before they begin (to plan) and then to verbalize their plan. Practice time is given for children to try planning on their own.

Children in small groups each have a turn to tell the others in the group what they are going to do and have the group members copy the leader. (The leader may tell his or her plan to the entire class.)

Facilitation and Reflection:

What does it mean to move with movements of different sizes?

What traveling locomotor movements did you like to use with big movements? With medium movements? With little movements?

How did you keep from bumping other children when you were using big movements?

What did you tell the children in your group about your plan?

Were the plans clear enough to follow easily?

When might you want to plan movement before you do it?

When might you want to change the size of your movements?

Extensions:

The planning process can be used for other extensions of locomotor and nonlocomotor movement as well as for combinations of extensions.

Kindergarten children can plan how they are going to travel to their area for work time.

Older students: Plan and tell the class what sequence of two locomotor movements they will use and what size each will be.

16

Seven Jumps

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Responding visually
Steady beat
Kinesthetic memory
Fermata

Children jog in place to the recording and then follow the sequence of demonstrated movements to the longer and shorter held chords.

Materials:

Record, tape, or compact-disc player
Recording of *Seven Jumps* (RM2)

Activity to Experience:

Children listen to the music and jog in place to the steady beat. They are encouraged to use a different variation on the repeat of the A section, such as scissoring their feet in or out. (The repeated sections precede the longer and shorter held chords.) Older students or an adult leader may wish to lead 12 jogging steps plus one jump lasting four beats for each of the two A sections. For more information on musical form (A and B sections) see *Foundations in Elementary Education: Music*, pp. 102–106.

Longer and shorter chords make up the B section of the music. One longer chord and one shorter chord are added on each repeat of the music. Children are encouraged to volunteer a static (paused) movement for each longer held chord (called a *fermata* in music) that will be sequenced for the final performance. Eight static movements are needed for the entire selection. (Two static movements are used on the first playing of the B section's chords, and then one is added on each repeat.)

Sample sequence of static movements:

1. Arms raised overhead
2. Hands to knees
3. Both arms out to the sides
4. One knee to the floor
5. Other knee to the floor
6. Both elbows to the floor
7. Lie face down in a push-up position
8. Roll to the back and kick legs in air for final A sections

Source: Jennifer Weikart Danko

Perform to the music as follows:

A section: Run in place 12 steps; then do 1 jump held for four beats. Repeat.

B section: On each of the two held chords, do the first two static movements (arms overhead, hands to knees). Return to the A section. (No movement is changed on the shorter chords.)

Second B section: Add the third static movement (arms out to the sides) on the third chord.

Note: Each B section, add one more static movement from the list.

Final A: Lie on back, "bicycle" with arms and legs.

Facilitation and Reflection:

How did you know when to use the variation of the jog or the jump?

How did you decide what movement to do on the longer chord?

How did you decide the order of the movements?

How do we describe the music concept *fermata*?

Are there other times when we need to remember a sequence?

Extensions:

Encourage the students to use all movements that require balance.

Develop and perform the sequences in small groups.

Travel about the space on the A sections of the music. Add a balance for the final four beats of each A.

17

Statue Clones

Kindergarten and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Acting upon movement directions**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Copying
Space awareness
Steady beat

Children work as partners. One child makes a statue shape while the music is playing. The other child travels about the space to the beat of the music. When the music stops, the child traveling returns to copy his or her partner's statue.

Materials:

Record, tape, or compact-disc player
Recording of *Cherkessiya* (RM2)

Activity to Experience:

Children explore different statue shapes, and all copy several children who volunteer to demonstrate their statues.

Working as partners, children copy each other's statue.

All listen to the recording and step in place to the steady beat. Then they travel about the space to the music.

In partners, one child is the statue and the other is the traveler. When the music is on, the statue partner freezes into a statue shape while the other travels about the space. When the music stops, all return to their partners and copy the partner's statue. The activity continues, with the partners changing their roles.

Facilitation and Reflection:

What made a statue easy to copy? Hard to copy?

What helped you keep the steady beat?

How did you keep from bumping into the statues or the other children who were traveling?

When might we see statue shapes?

Extensions:
Younger children can move in a circle while the music is playing. The statue person, who is in the center, makes a statue when the music stops, and all copy.

Return to a different rather than the original partner.

Older students: When the statue is copied, the copier makes the statue with one move at a time while talking about each movement.

Older students can keep one part of the statue moving to the steady beat of the music after the music stops.

Older students may decide to make a statue that mirrors their partner's statue or a statue that uses the same right and left body parts that their partner used.

Draw the statues, or title them and write a story about them.

Also see Activity 26.

18

"People in Our Town"

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Microbeat
Low to high vocal sounds

Children walk to a common beat and respond to the poem's directions. At the end of the poem, a low-high-low vocal sound is added.

Materials:

There are people in our town
Going for a walk today.
The wind is blowing so very hard,
It turns us the other way. Ooooh!

Activity to Experience:

Children walk to the beat tempo set by one of the children. The child leader uses his or her internal tempo, and the class matches that tempo. All use learner SAY & DO.

Children talk about the wind and what might happen if the wind blows very hard. The teacher shares the poem, after which children talk about what happens in the poem.

Children make siren-like vocal sounds, going from low to high to low while saying "Ooooh." They move their body in a direction that matches the sound.

One child is the leader. The teacher uses the **anchor word** "WALK" to bring all to group synchronization in the walking beat set by the child. The poem is added, with all walking to the steady microbeat. At the end, they turn around as they make the low-high-low vocal sound.

Categories of people or animals can be substituted for the word "people" in the poem. Children represent how those people or animals would walk.

Facilitation and Reflection:

What helps us match the same beat someone else is walking?

What happens when the wind blows gently or hard? How can we show it in our bodies?

How do we make our voices go down and up (low and high)?

What helped you keep the beat during the poem?

Extensions:

Change the locomotor movement from walking to marching, galloping, or skipping.

Second-grade and older students can also walk the macrobeat.

Third-grade students can perform combinations of macrobeat and microbeat, such as microbeat in the feet and macrobeat in the hands.

Perform sequences of movement to the poem.

Make up other poems that can use locomotor movement.

19 Understanding Spatial Concepts

Kindergarten and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Expressing creativity in movement**

Curriculum Concepts:

Spatial relationships

Children explore *nonlocomotor* (anchored) and *locomotor* (nonanchored) movement using the list of spatial concepts developed by the children and teacher. They volunteer to share their ideas with the class.

Materials:

Cards with words for spatial concepts written on them (*over, under, through, between, around, up, behind*)

Activity to Experience:

Children are assisted to develop a list of spatial-concept words that can be expressed with movement. The final list is put on cards and placed so all can see it. (If you are working with kindergarten or first-grade students, you may wish to use spatial-concept words and begin a list of them as you or the children introduce them.)

K–1 children: Cards are placed upside down. One child draws a card, and all the children explore a way to express that word in movement. Volunteers share their movement ideas with the class, and the class copies.

Older students: Working with partners, students explore with nonlocomotor or locomotor movement any of the concepts they choose or the ones they draw at random from the cards. Partners talk about the spatial concept and choose a way to express it with either nonlocomotor or locomotor movement. Volunteers share their movement ideas, and the class guesses what word they are representing.

Facilitation and Reflection:

Describe the movement you used or others used.

Why did you choose the movement you used to show the concept *under*?

What does the word "under" mean?

When is the concept *under* used in our class? (feet are under the tables, blocks are under the shelf)

Extensions:

You may wish to have children draw and explore body/language-awareness words, such as "swing" and "push."

You may wish to create larger groups, so each group can design a choreography using a spatial concept.

Make a drawing of the way the concept was interpreted.

Write sentences using the concepts as they were expressed in movement.

Use a musical selection, such as *Hole in the Wall* (RM4), and move with a particular concept or a sequence of concepts.

Also see Activity 4 and Activity 11.

20

We Keep the Beat Together

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Feeling and expressing steady beat**
- **Acting upon movement directions**

Curriculum Concepts:

Responding to a visual demonstration
Keeping steady beat to a song
Kinesthetic memory

Children keep the steady beat to a song and then follow the visual demonstration performed by the leader.

Materials:

We Keep the Beat Together on next page

Activity to Experience:

One child leads the class with a walking tempo. All copy the leader. The teacher speaks the **anchor word** "WALK" eight times in the tempo the child has chosen. The song is sung with all keeping the beat. (See Activity 3 for an example of an **anchor word**.)

At the end of the song, all copy the two single static movements selected by the leader.

Another child is the leader for the beat of the song. The new leader adds one movement to the two movements set by the first leader. The action song continues with new leaders and one new movement added each time. Here is a sequence of movements that might be used:

arms out in front of the body
thumbs up
knees bent
toes in
bottom out
head down

Facilitation and Reflection:

How did you decide what movement to add when it was your turn to be the leader?

How did you remember the movements that were used before you were the leader?

Can you recall the order of all the movements?

What movements were easiest (hardest) to copy?

What did you have to do to keep your feet in the beat?

Extensions:
Have students work in small groups. Each group decides on their own sequence of four to eight movements, which they do in their respective groups after the song.

Begin with fewer movements in the total sequence.

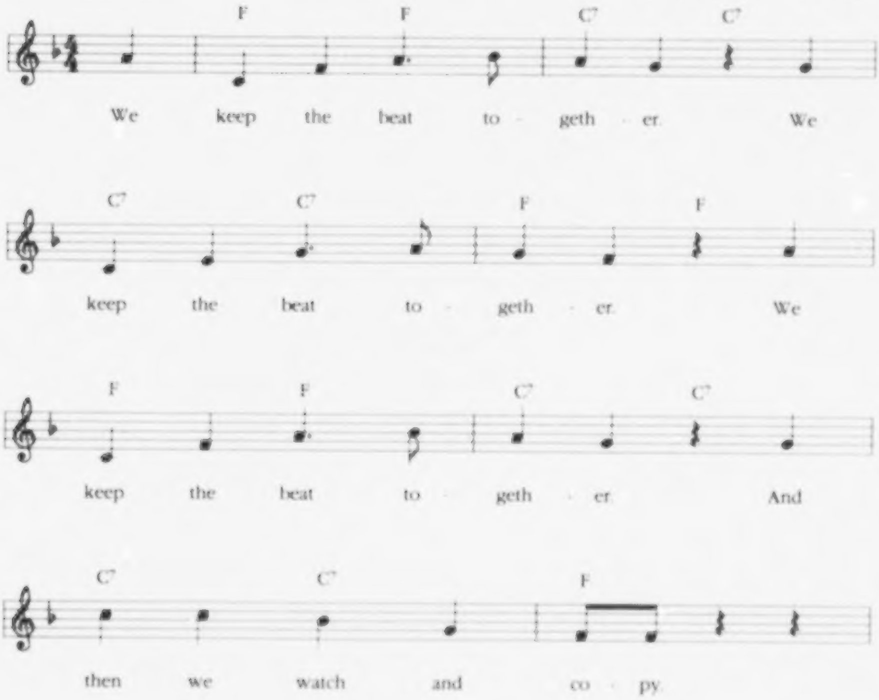
Substitute a learner SAY & DO echo for the watch and copy.

Also see Activity 16 and Activity 18 for additional beat-keeping with locomotor movement.

We Keep the Beat Together

(Go In and Out the Windows)

Adapted by Phyllis S. Weikart


F F C7 C7
We keep the beat to - geth - er. We
C7 C7 F F
keep the beat to - geth - er. We
F F C7 C7
keep the beat to - geth - er. And
C7 C7 F
then we watch and co - py.

Demonstrate "arms out," they copy.
Demonstrate "thumbs up," they copy.
With each repetition, add one more movement after
"arms out, thumbs up."

21

Who's Driving?

Kindergarten and above

Key Experiences:

- **Moving in locomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Space awareness
Steady beat—microbeat

Paired children stand one behind the other: The child in front holds the steering wheel, and the child behind steers the car. Partners travel about the space; then music is added.

Materials:

Record, tape, or compact-disc player
Recording of *Santa Rita* (CD5)
Small hoops simulating steering wheels (optional)

Activity to Experience:

One half of the group holds both arms out in front, with or without the hoop, and walks about the space. The other half of the group then tries walking about the space with or without the hoop.

Children with the hoops take partners without hoops. Each child with a hoop stands in front of his or her partner. The partner behind holds the shoulders of the partner with the hoop and steers the partner about the space, avoiding contact with the others. Partners switch places and move again. *Note:* If "cars" collide, this is an "accident," and the two pairs of children involved sit down to wait for repair by the person designated to repair the cars.

Children all walk to the steady beat of the music. They exchange roles, form their "cars" again, and synchronize their steps to the music.

Facilitation and Reflection:

What did you do to avoid bumping into the others?

What plan did you use if the partner in front was taller than the one behind?

Did you make any changes in your traveling when the music was playing in order to keep your feet in the steady beat?

When people drive cars, what safety rules do they have to follow?

Extensions:

Each preschool and kindergarten child holds a small hoop and moves about the space.

Second-grade and older students may wish to try doing the same activity with the partners in front closing their eyes.

The partner behind responds to the way the partner in front is holding and turning the "wheel" or pretending to travel *up* and *down* hills (using the concepts of *pathway* and *level*).

22

Action Words

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Expressing creativity in movement**
- **Describing movement**

Curriculum Concepts:

Meaning of action words

Children have developed a list of action words, such as "shake," "punch," "dab," "flick," "float," and "touch." They explore creatively ways to express the words with movement.

Materials:

None, or cards with action words written on them

Activity to Experience:

Children have started a list of words that might be expressed in movement. During the time stories are read to the children, the teacher can engage children to try out movements for showing the action words in the story.

After the children have explored their way to show "shake," several children volunteer to show their ways to the class, and the class copies.

Children are engaged to talk about the different ways the action words were represented.

Facilitation and Reflection:

What do we mean by the term "action words"?

What different body parts did you use to show the word "shake"?

What *different* ways did Suzie, Patrick, and Calista show the movement for "shake"?

When might you see people using a shaking motion?

Extensions:

Place the action-word cards upside down in the middle of the space. Children draw a card and demonstrate their action word through movement. Volunteers share their words, and the class guesses what the word is.

Use the words in sentences, and act out the sentence.

23

Matching Stick-Figure Poses

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Acting upon movement directions**

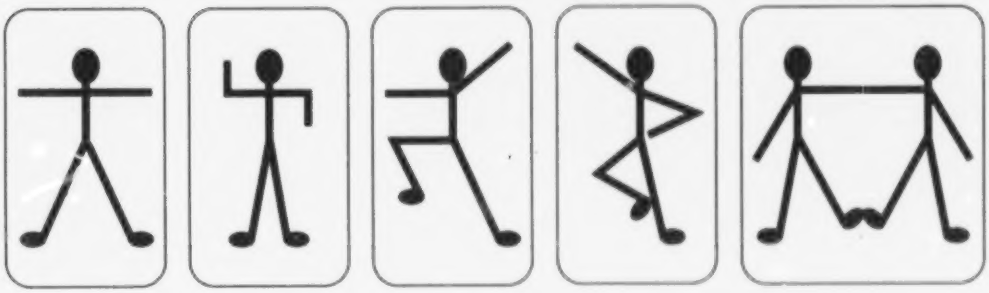
Curriculum Concepts:

Representation
Visual discrimination

Children create stick-figure poses on cards. A leader selects one of the cards to show the class. The children try to strike the same pose with their bodies.

Materials:

Cards with stick figures drawn on them, as shown here



Activity to Experience:

Children create stick-figure poses on cards. If the children cannot do this step, the stick figures might be made by a teacher or commercially made.

The child leader selects a card and shows it to the class. The class members construct with their bodies the pose shown on the card. They can be standing or lying down.

Students may wish to work in small groups, so more individuals have an opportunity to be the leader.

Facilitation and Reflection:

What did the pose (shape) remind you of?

What poses (shapes) were the easiest to copy? Why?

What poses (shapes) were the hardest to copy? Why?

Where might we see people in poses that we could copy? (statues and paintings in art museums, store mannequins, statues in the park, pictures in books)

Extensions:

All might move around to the beat of the music. When the music stops, a card with a pose (shape) is shown and all copy.

Older students might draw stick figures that are joined in twos, threes, or fours.

The leader draws from among cards placed face down. After looking at the card, he or she gives the class only a verbal description of the pose shape on the card, and the class tries to figure out the pose. After the verbal description is given, the class looks at the card. This example also uses the key experience *describing movement*.

24 Different Shape— Different Movement

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Describing movement**

Curriculum Concepts:

Representation
Locomotor and nonlocomotor movement labels
Planning and recalling
Same and different

Children in the gym choose and remember nonlocomotor movements they will perform on each of the geometric shapes. They plan which locomotor movement to use to travel from one shape to another.

Nonlocomotor Movement Menu

bend	straighten
twist	turn
swing	rock
curl	stretch
push	pull
rise	fall

Materials:

Geometric-shape cutouts with nonskid backing (circle, square, rectangle, triangle)
Nonlocomotor movement menu written on a large sheet of cardboard (at the left)

Activity to Experience:

Geometric shapes are placed about the space with equal numbers of each of the four shapes. Each child stands on or next to one of the geometric shapes.

Children agree on four nonlocomotor movements they will use with each of the geometric shapes, such as twist for the square and swing for the triangle. They use the menu of nonlocomotor movement.

Children perform the nonlocomotor movements for the shapes they are standing on or next to. Children are encouraged to talk about how they are doing the movement agreed upon for each shape (twisting arms overhead or to the side).

Children plan how they are going to travel to another shape (same or different) that they have selected. They travel to that shape and recall the movement that accompanies that shape.

Facilitation and Reflection:

What nonlocomotor movement could you do while you are standing on the circle? Square? Rectangle? Triangle?

Describe how you are doing your twisting (swinging) movement. Where are you doing it?

Plan a way to travel to the next shape. How are you going to travel?

What helped you remember the movement to do on the shape you selected?

Where in the room do you see those shapes?

Extensions:

Older students: Put the shapes in a row on the floor, and decide on a sequence of movements to do with the shapes. See Activity 80.

Older students: Decide on locomotor or integrated movements for each of the shapes.

Move to the beat of a recorded musical selection, such as *Pata Pata* (RM6).

25 Companion Words

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Steady beat
Companion words

Children generate a list of companion words. They speak words separately with each rocking motion, and then they unite the two words with each rocking motion.

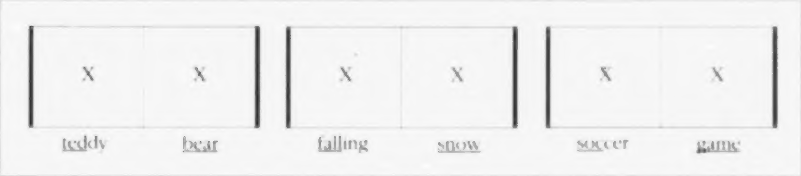
Materials:

None

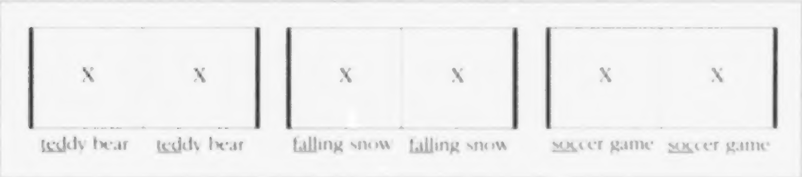
Activity to Experience:

Children practice rocking together on a common beat. They might form a circle made up of the entire class, smaller circles, lines, or partners. They use learner SAY & DO with the word "ROCK."

Children work with the list of companion words they have generated. Each endpoint of the rocking movement is united with one of the two words in pairs such as "teddy bear," "falling snow," or "soccer game." Each word is *spoken naturally*. One student sets the rocking beat for all to follow. The "X" in each beat-box denotes an endpoint of the rocking movement side-to-side or front-to-back. See figure to the left.



Children now try to speak *both words* with each rocking movement. The companion words "teddy bear" now flow together on each rock. Each endpoint of the rocking movement, denoted by the "X" in the diagram, matches two words *naturally spoken*. See figure below.



For rocking and saying the companion words, children may suggest using a standing position alone, or several children standing joined together with an object, such as a pole.

Facilitation and Reflection:

How do you know you are keeping the beat steady when you rock?

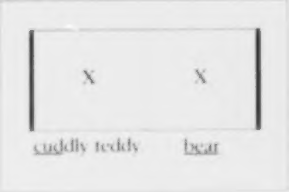
How do you keep yourselves from falling over when you rock?

How do you get the words to flow together?

What are other examples of "companion words"?

Extensions:

Extend companion words into word phrases, such as "cuddly teddy bears." This phrase would have one rock for "cuddly teddy" and another rock for "bears," as shown at the right.



Sing two pitches with the two companion words.

Also see Activity 8.

26

Statues That Change

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Acting upon movement directions**
- **Describing movement**

Curriculum Concepts:

Kinesthetic memory
Steady beat
Same and different
Planning and recalling

One child makes a statue shape, which is copied by a partner. The copier travels around the space to the music, and the statue-maker alters the statue with one change. The copier returns and copies the statue again, identifying the one change that has been made.

Materials:

Record, tape, or compact-disc player
Recording of *Soldier's Joy* (RM2)

Activity to Experience:

The class is divided into partners. One person in each pair makes a statue shape, which the partner copies. Copiers are encouraged to talk about the statue shapes.

Copiers tell their partners how they are going to travel about the space to the music, and then they begin. Statue-makers create one change in the statue. When the music stops, the travelers return to their partner and copy the partner's new statue, identifying the one change that was made in it.

Partners reverse roles.

Facilitation and Reflection:

What was special about your partner's statue?

As the statue-maker, how did you decide on the change you would make in your statue?

If you were the copier, how could you tell what change your partner made in the statue? How did you remember the way the statue was made?

Was there anything about the music that helped you choose the way you would travel?

Extensions:

Young child: One child makes a statue. All copy. Another child, with hands-on guidance, makes one change in the child's statue. All copy and identify the change.

When working with kindergarten children, you may wish to first have one statue-maker to whom all respond. See Activity 17.

Create more than one change in the statue.

The statue-maker *tells* the copier the one change to make when he or she returns, but the statue-maker does not demonstrate the change.

The statue-maker tells the partner how to travel.

27

Beat Echo

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**
- **Acting upon movement directions**

Curriculum Concepts:

Echo
Steady beat
Macrobeat
Number
Visual responding

Children respond in steady beat to the leader's movements. The response occurs after the leader performs the single movement two times. Music is added.

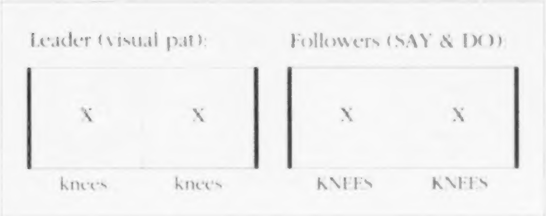
Materials:

Record, tape, or compact-disc player
Recording of *Echo* (RM1)

Activity to Experience:

Children try out single movements *in repetition* using steady beat, such as patting their knees or shoulders, pushing their arms away from their body, pounding with both fists, etc. Using learner SAY & DO helps the beat remain steady.

Children try a series of movements, with each movement performed two times in a slow, steady beat (e.g., patting knees twice, patting shoulders twice, pushing twice, and pounding twice).

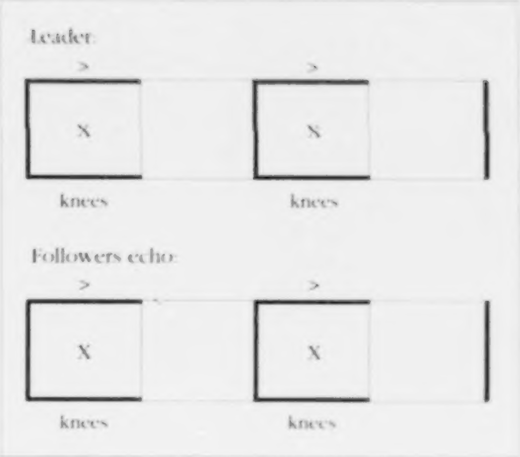


The class reviews the concept of *echo* movement (in which followers do the movement after the leader finishes, not while the leader is moving). The teacher leads several examples like the one shown at the left.

One child volunteers to lead the class or small group. The leader performs the first movement two times in steady beat, and the class copies (echoes). Then the second movement is led two times, followed by the echo. If the response is performed with learner SAY & DO, it will be more accurate.

Other children volunteer to be the leader.

Music is added, and the macrobeat is used for each set of movements, as shown at the right.



Facilitation and Reflection:

What does it mean to move in steady beat? In macrobeat to the music?

When you were the one to echo the movement, how did you know when to begin?

When you were the leader, how did you know when to begin the second pair of movements?

What does the word "echo" mean?

Are there any other times you might hear an *echo* or use the idea of *echo*?

Extensions:

Use single locomotor or integrated movements instead of nonlocomotor movements.

Older students: The leader performs two locomotor movements followed by two nonlocomotor movements before the class or group echoes, such as two jumps and two pats of the shoulders. For a challenge, try alternating the locomotor movement with the nonlocomotor movement (hop, snap, hop, snap).

The leader speaks the labels for the movement, and the class echoes with SAY & DO.

The followers echo the movements of the *body scale,* with the corresponding pitches sung on a neutral syllable. (Please refer to *Foundations in Elementary Education: Music,* p. 35, for an explanation of the *body scale.*)

Also see Activity 28 and Activity 67.

28

Echo Sequence

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequence
Echo
Musical phrase
Musical form

Children explore two-movement sequences. Volunteers lead a partner, and then the class, in echo movement. Music is added if desired.

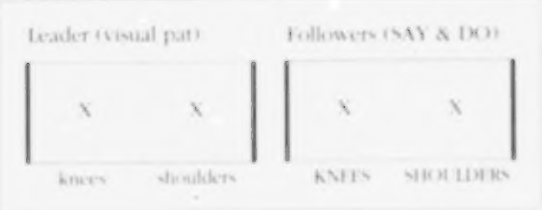
Materials:

Record, tape, or compact-disc player
Recording of *Road to the Isles* (RM5)

Activity to Experience:

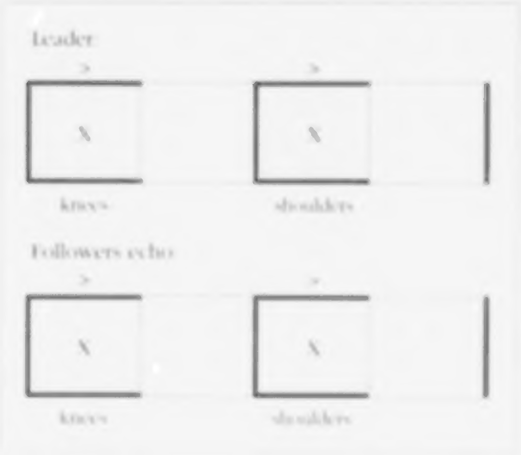
Children explore two-movement sequences, such as pat knees, pat shoulders (KNEES, SHOULDERS); or straighten both arms, then bend them (STRAIGHT, BEND).

Children recall the concept of *echo movement.* The teacher leads several examples of two-movement sequences, like the one shown at the left, and the class copies after the teacher completes the second movement of each sequence. A strategy of WHISPER & DO while the leader is moving, then SAY & DO when copying, helps learners to experience success.



Each child works with a partner. One person is the leader and the other is the copier with echo movement. They change roles after several sequences are copied. Partners volunteer to lead the class in these echo movement sequences. (If the leader repeats the sequence a second time after it is echoed, rather than immediately using a new sequence, more children are successful and the child is not planning new sequences with each lead.)

Music is added, and the macrobeat is used, as shown at the right. Children identify the beginning of the phrase for the start of each movement sequence. As movements are led, echoed, and then repeated, the form of the music also is experienced.



Facilitation and Reflection:
What do we mean by a movement sequence? Describe one you used.

How do you know when to begin your turn when you echo the leader?

How did you remember the sequence performed by the leader?

What does it mean to echo? What are some other occasions when the echo concept is used?

Extensions:
Lead single movements instead of sequenced ones. See Activity 27 and Activity 67.

Use locomotor movement or integrated movement for the echo sequence.

Combine one locomotor movement with one nonlocomotor movement in the sequence (JUMP, CLAP).

29

Extending Our Movements

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**

Curriculum Concepts:

Extensions of movement (direction, level, size)

Children review several basic nonlocomotor and locomotor movements. They talk about and explore ways to extend those movements using *direction, level, pathway, intensity, size,* and *flow*. They share their extensions with the class.

Nonlocomotor-Locomotor Movement Extensions Menu

direction
pathway
intensity
level
size
flow
time

Materials:

Menu of nonlocomotor movement extensions written on a large sheet of cardboard

Activity to Experience:

Children choose several basic nonlocomotor or locomotor movements and recall the body-awareness concepts for those labels. The class reviews several of the movements chosen.

Children discuss ways to extend (vary) those movements. They try several extensions that they want to use with one of their movements. Children volunteer to share their ideas.

Children explore whether or not the extensions chosen can be used with other movements.

The class reflects on the extensions tried and their applicability to a variety of nonlocomotor and locomotor movements.

Facilitation and Reflection:

What are some of the nonlocomotor movements we have explored in other class periods? What are some of the locomotor movements?

What ways can we make those movements different?

How is *direction* (*level, pathway,* etc.) different if we use it with nonlocomotor movement instead of locomotor movement?

When might we use *direction* (*level, pathway,* etc.) other than in this class?

Extensions:

Children can pick extensions from cards placed face down in the center of the floor and also pick the movement to use for that extension.

All students can work with one movement and one extension and then share the different ways they found to perform that movement with its extension.

A student may do a movement with one or more extensions. The class copies, then identifies the extension(s) used.

For further extensions of nonlocomotor and locomotor movement, see Activities 14, 15, 30, and 38.

30

Making Pathways in the Air

Grade 1 and above

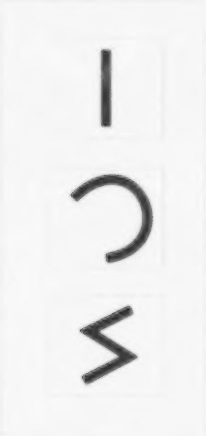
Key Experiences:

- **Moving in nonlocomotor ways**
- **Expressing creativity in movement**
- **Acting upon movement directions**

Curriculum Concepts:

Pathways

Children explore and identify nonlocomotor movement pathways. They discover what types of pathways are created by different nonlocomotor movements.



Materials:

Large sheets of paper, yarn
Cards illustrating the three pathways (shown at the left)

Activity to Experience:

Children explore the pathways they make using nonlocomotor (anchored) movement and share their ideas with the class. Children discuss various nonlocomotor movements and decide what pathways the movements usually follow.

Children, working in small groups, draw pathways on large sheets of paper and then also use yarn to represent pathways. *Note:* All three kinds of pathways (straight, curved, and zigzag) can be part of the drawings and the yarn representations. In moving body parts along the pathways they represented, children create a movement score. Children are encouraged to share their ideas.

Facilitation and Reflection:

What do you already know about pathways? What are the basic pathways?

Describe the pathway you drew and represented with the yarn.

What movement did you choose to represent your pathway and why?

What kinds of pathways are used in writing letters? In making drawings? In writing music? What pathways do you see represented in our classroom?

Extensions:

Children add vocal sounds to represent their movement score.

Different body parts may represent the nonlocomotor movement when each pathway changes.

Children construct pathways used to make capital letters. They move some body part along the pathway for each letter selected, choosing the type of movement they will use to represent each type of pathway.

Children may choose to draw pathways, including letters, on the backs of partners. The partner identifies the pathway and replicates it in the air, in front of his or her body, the same way it was drawn on the back. Also refer to Activity 47.

Pathways may be extended to locomotor movement. See Activity 11.

31

Is It Macrobeat or Microbeat?

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Macrobeat
Microbeat

Children detect if the movement response to rhymes, songs, and recordings is in the macrobeat or the microbeat. They demonstrate the beat chosen in a different way and in the opposite way.

Materials:

Rhymes and songs children know
Record, tape, or compact-disc player
Instrumental selections on *Rhythmically Moving or Changing Directions*

Activity to Experience:

Children recall the difference between macrobeat and microbeat as they listen to or say rhymes, sing songs, and listen to recorded selections.

One child volunteers to leave the room to be the "beat detective." The class selects a rhyme or song they know and decides whether to keep the macrobeat or the microbeat. They say the rhyme or sing the song, keeping the beat they have chosen. The "beat detective" returns, copies and identifies the beat, then keeps that same beat with a different movement. The "beat detective" then demonstrates a movement in the beat not chosen by the class.

The game also is played with recorded selections identified.

Small groups can play the game, so more children have a turn as the beat detective.

Facilitation and Reflection:

What do we know about macrobeat and microbeat?

When you were the "beat detective," how did you figure out the solution? Were the beats organized in twos or threes?

When you chose a different movement as the "beat detective," how did you know it was the same beat the class was using?

When you showed an example of the other beat—the one the class did not choose—how did you know you were keeping the correct timing?

Extensions:

Use locomotor movement for the "beat detective" game.

Third grade and above: Review folk dances and decide what parts of the dance use macrobeat and what parts use microbeat.

Choreograph movement sequences to rhymes, songs, or recorded selections using macrobeat and microbeat. Example: Walk four microbeats followed by two macrobeats, or walk six microbeats followed by one macrobeat, or jump three macrobeats and hop two microbeats.

For older students, try Activity 37.

32

Puppets

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**
- **Describing movement**

Curriculum Concepts:

Responding to visual cues
Kinesthetic awareness

One child leads in demonstrating single static movement by moving a blindfolded partner (a "puppet") with hands-on guidance. The others in the class copy the movement.

Materials:

Blindfolds for half of the children

Activity to Experience:

Each child has a partner and one in each pair is the leader. Partner A wears a blindfold, or closes his or her eyes, so he is the "puppet" and partner B is the leader. Both are standing. Partner B moves partner A, one movement at a time, with the puppet identifying each move.

After all have explored the two roles, one pair volunteers to lead the class. Each move that the lead pair makes is copied by the class, also working in pairs. Puppets tell their partners about each move.

A different pair volunteers to lead the class, and partners A and B in each pair change roles.

Facilitation and Reflection:

What movements did you select for your partner?

As the puppet, which movements were the most comfortable and the easiest to identify? Which were the hardest?

If you did this activity while standing, what different things did you have to think about?

What different ways can the arm move at the shoulder? At the elbow?

Extensions:

Use verbal directions for the partner to respond to. See Activity 53.

Use two or more movements before the partner responds.

All move their partners to the phrases of a musical selection. The single movement occurs at the beginning of each phrase.

Note: This activity was initiated by students in a classroom where there was a visually impaired student who always had a partner to execute the movement when the teacher demonstrated a movement without giving any verbal directions.

Also see Activity 58 for responding to visual cues.

33

Pushing Up

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Expressing creativity in movement**

Curriculum Concepts:

The concepts *push* and *up*

AB form (see *Foundations in Elementary Education: Music*, p. 65)

Children explore the concepts of *push* and *up*. They devise as many ways as possible to unite the two concepts into *push-ups*. Small groups have an opportunity to share their discoveries. A choreography to music results from the ideas presented.

Materials:

None

Optional: Record, tape, or compact-disc player

Rhythmically Moving or *Changing Directions* selections, such as *Dučec* (RM8)

Activity to Experience:

Children explore the two concepts of *push* and *up*—the nonlocomotor movements plus directional extension in many different ways—sharing their ideas.

Small groups are formed, and children unite the words into *push-ups*. They create different ways to show the concept. They share their ideas with the class.

Children try their push-up ideas to music in a repetition. Several ideas are decided on, and the class performs the push-up choreography using the two main sections of the music (AB form) for the places to change the movement. (Each section has 16 microbeats.)

Facilitation and Reflection:

What did you do to show the word "push"? The word "up"?

What different ways did you find to connect the idea of *push* and the idea of *up*?

How were the group's push-up movements different? The same?

When we used the music, how did we know when to change the movement?

When might we use the idea of *push-up*? (raising a window, doing exercises)

Extensions:

Combine other directional concepts with *push* (such as *push down, push out, push away*) or with *up* (such as *swing up, jump up*).

Children think of other action words that can be combined with directional words (e.g., punch away).

Also see Activity 22.

Older students create sequences of action words combined with directional concepts (e.g., push up, push down, shake in front, shake to the side).

34

Recalling the Past

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Describing movement**

Curriculum Concepts:

Thinking and language—recall
Kinesthetic awareness
Space awareness—direction

Children discuss strategies they might use to recall movements that have occurred. They explore nonlocomotor movements in different directions. Selecting an order for the movement directions, they perform them and then recall the order of the directions.

Materials:

None

Activity to Experience:

Children are encouraged to try nonlocomotor (anchored) movements with their arms outstretched in different *directions*, such as twisting their arms forward, sideward, upward, or downward.

Children recall what arm directionality they used for their nonlocomotor movements.

Children now work with one nonlocomotor movement and decide on an order of the directional extensions for the movement. They are encouraged to think about how they are performing their movements, so they can recall the order they used.

Children volunteer to show the class how they performed their movements. (Class joins in with the demonstration.) The leader then recalls for the class how the movement was performed. The class determines if the recall has been accurate.

Facilitation and Reflection:

What different arm *directions* did you use for the movement?

What helped you to recall how you performed your movements?

When might we be asked to recall the order of actions we have just completed?

Extensions:

Have children recall sequences of movements, such as three hops, one jump, and five walks.

Have children recall a four-motion sequence of single actions that will be repeated several times, such as straightening arms in front, touching shoulders, touching knees, and bending arms.

Older students recall the sequence of movements in a dance.

Also see Activity 53.

35 Spelling Song

Grade 1 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Spelling
Macrobeat
Microbeat

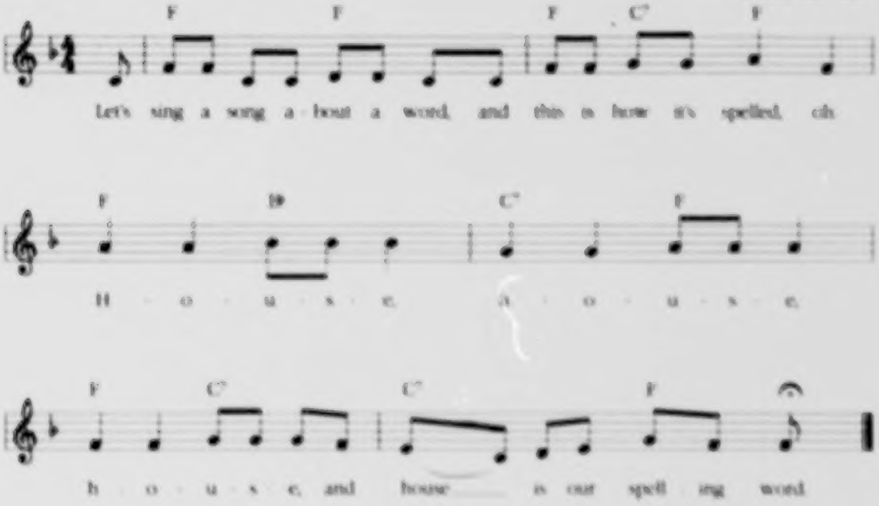
Children spell words while patting the macrobeat. They sing the song with the spelling.

Materials:

Let's Sing a Song About a Word

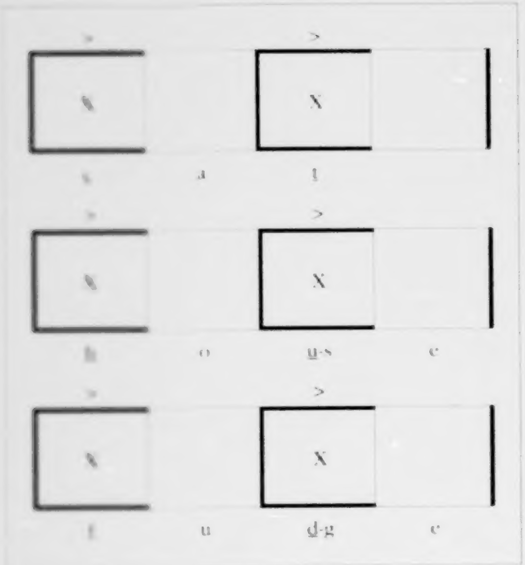
(Bingo)

Traditional Tune


F F F C7 F
Let's sing a song a-bout a word, and this is how it's spelled, oh
F B♭ C7 F
H - o - u - s - e, h - o - u - s - e,
F C7 C7 F
h - o - u - s - e, and house is our spell-ing word.

Activity to Experience:

Children decide on words they wish to spell. They rock and/or pat the macrobeat and spell the words, using one, two, or three letters for each rock to make it fit the melody of the song. Examples with the macrobeat underlined are given at the top of the next page.



The teacher sings the song and inserts the spelling word. Children join in when they are ready. *Note:* If the word has three letters, the spelling part of the song is sung "c-a-t spells cat."

Children may decide they wish to step to the microbeat. In microbeat, when the spelled word has an even number of letters, there is one step for each letter. When the spelled word has an uneven number of letters, some letters are combined on each microbeat. Adjust the spelling to fit the beat in the most natural way.

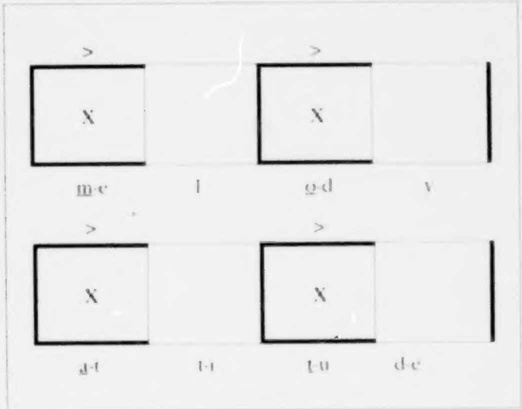
Facilitation and Reflection:

How did you think of the words differently when you were spelling them to a beat?

How did the song make it easier? Harder?

What other facts to be learned could you put into a song with a beat?

Extensions:



Older students: Use longer spelling words, as shown at the right.

Use multiplication tables and other math operations.

The children can make up different words to the song. For the spelling part of the song, use a three-letter word and add a rhyming word, like this (microbeat is underlined):

C-a-t rhymes with hat,
c-a-t rhymes with hat,
c-a-t rhymes with hat, and
cat and hat are rhym-ing words.

Use categories. See Activity 64.

36

Stop and Balance

Grade 1 and above

Key Experiences:

- **Moving in locomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Space awareness—balance
Steady beat

Children decide on locomotor movements to synchronize to the steady beat of the music. When the music stops, they copy the balanced position of the leader.

Materials:

Locomotor movement "menu" (from Activity 9)
Record, tape, or compact-disc player
Recording of *La Raspa* (RM3)
Optional: Drum for extension

Activity to Experience:

Children explore different ways to move about the space and to stop in different balanced positions.

Several children volunteer to be the leader. They share their ways of moving and the way they balance. When they want the class to stop and balance, they say the words "stop sign."

Children listen to the recording, step to the beat in place, and then explore different locomotor movements the music suggests to them.

One child is the leader. The leader shows the balanced position to be used when the music stops and also demonstrates the way to travel. The leader is responsible for starting and stopping the music.

A new leader continues the activity.

Facilitation and Reflection:

What type of stopping position made it easy to balance? Hard to balance?

What types of locomotor movements did you choose to use for the steady beat of the music?

When might you have to stop suddenly and not fall down? (if a car was approaching, if someone moved in front of you and you were not expecting it)

Extensions:

Kindergarten children will enjoy Activity 9, which is a simplified version of this activity.

Grade 3: Using a drum or other hand-held instrument, the leader keeps the same beat of the music after the music pauses. All find a way to move some part of their body to the leader's beat while keeping their balanced position.

37

Trains

Grade 1 and above

Key Experiences:

- **Moving in locomotor ways**
- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Macrobeat and microbeat
Space awareness
Musical form

Children march in trains to the microbeat of the music. During the A section of the music, the leader faces the others in the train and uses both arms to lead macrobeat movements. During the B section of the music, the leader travels about the space in microbeat, with the train joined behind.

Materials:

Record, tape, or compact-disc player
Recording of *Tzadik Katamar* (CD2)

Activity to Experience:

Children listen to the music and march about the space to the microbeat. They also explore doing movements with their arms to the macrobeat while standing in personal space.

Trains of five children join together. Each child places both hands on the shoulders of the child in front. They practice marching about the space, giving each child a chance to be the leader. They also practice leading arm movements in macrobeat. Two **simplify** strategies are (1) to begin alone or with shorter trains and (2) to have the children form trains without hands on the shoulders.

The first leader, with both arms, leads nonlocomotor movements to the *macrobeat* on the single A section of the music. On the B sections, the leader leads the train about the space, marching to the *microbeat*. At the end of the two B sections, the leader goes to the end of the train, leaving the second person as the new leader. The form of the music is ABB, and there are five repetitions on the recording.

Facilitation and Reflection:

What arm movements did you use for the macrobeat of the music?

What did you do to avoid other trains in the space?

What helped you know when to change from the A section to the B section of the music and when to go to the end of the train?

Extensions:

Grade 3 and above: Choose which beat to use and keep it with arms *and* legs while traveling in the trains. If one arm keeps the beat, the trains can be joined with the other hand. If both arms are used, the trains cannot be joined.

Experiences that precede this include these: move alone, move in pairs, one behind the other and not joined, and then joined; progress to longer trains; pause the music for change of leaders.

Put paper plates under both feet and "skate" to the macrobeat. The recording *Tipsy* (RM6) works well for this.

38

Traveling Pathways Without Objects

Grade 1 and above

Key Experiences:

- 🔑 **Moving in locomotor ways**
- 🔑 **Acting upon movement directions**

Curriculum Concepts:

Pathways
Representation

Children decide on three different locomotor movements to represent each of the three pathways—curved, straight, and zigzag (angle). They respond to a representation of the pathway drawn by one of the children.

Materials:

Cards and a marker
Optional: Record, tape, or compact-disc player and recordings of *Sliding* (RM1) and *Rakes of Mallow* (RM2)

Activity to Experience:

Children review the three kinds of pathways (straight, curved, zigzag, or angle), and explore movements for each kind. They share by describing their pathway and showing the movement they used. All copy the leader's movement and pathway.

A volunteer is given a card and a marker and asked to draw a pathway on the card and to show the movement for the pathway. The followers name the pathway and the movement and perform that movement.

A beginning strategy: Have the three kinds of pathways drawn on cards prior to the activity. The child leader chooses the card, names the pathway, and shows the movement for all to copy.

Facilitation and Reflection:

How is a straight pathway different from a curved or zigzag pathway?

What movements did you like to use to represent a straight pathway? A curved pathway? A zigzag pathway?

How could you use movement in other ways to show these three kinds of pathways?

How could the entire class move together to show these pathways?

Extensions:

Older children may wish to make the movement more complex by adding an extension to the movement chosen, such as level, intensity, direction, size, or timing.

Objects may be used to construct pathways. See Activity 11.

The three kinds of pathways may be chosen to represent each section of the three-part musical selection ***Sliding*** (RM1). Decide how many times each movement will be done to correspond to each section of the music. (There are 16 microbeats in each section.)

The movement may change as sections of the music repeat or change. Example: Using music in AABB form, such as ***Rakes of Mallow*** (RM2), students select locomotor movement and the pathway for the first A section; add an extension such as change of level, intensity, or size of step for the second A section; choose a different movement and pathway for the B section; and add an extension for the repeat of the B section. The same locomotor movements, with different extensions, may be chosen for later repetitions of the melody.

39

Who Matches Me?

Grade 1 and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Classification
Locomotor movement extensions
Steady beat

Children choose a locomotor movement and begin to move about the space. While moving, they find one child or several children who are doing the same locomotor movement. They move together, matching one another's timing. They then decide on one extension of their locomotor movement and perform it for the class.

Materials:

Optional: Record, tape, or compact-disc player and recording of *Man in the Hay* (RM3)

Activity to Experience:

Children are encouraged to try out various locomotor (nonanchored) movements and to choose one they will use.

All children begin to move using their chosen locomotor movements. They look around as they are traveling and find one or more persons doing the same locomotor movement.

Children grouped by locomotor movement find a way to match one another's movement and timing. Each group demonstrates for the class.

Subgroups within each locomotor movement (two or three people) decide on one extension for their movement, such as direction, level, pathway, intensity, or size, and synchronize their locomotor movement using this extension.

Groups volunteer to demonstrate for the class. The class copies and identifies the extension.

Facilitation and Reflection:

What are the locomotor (nonanchored) movements we could demonstrate?

When we are traveling using our own locomotor movement, what do we look for to make a match?

What strategies can we use to match one another's timing?

Why did you choose the extension you used?

When could we use these extensions in other situations?

Extensions:

Begin with the locomotor movement plus one extension, and have the students find someone using the same.

Travel to the beat of a recorded selection, such as *Man in the Hay* (RM3).

Make a chart of all the combinations used.

40

Numbers and Statue Shapes

Grade 1 and above

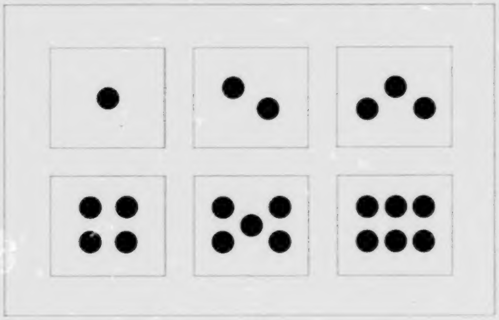
Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**
- **Describing movement**

Curriculum Concepts:

Number representation
Balance

Children draw a card with one to six dots on it. They make a balanced statue shape with the same number of body parts touching the floor as represented by the dots on the card. They describe their shapes.



Materials:

A set of cards each bearing 1 to 6 dots (one card for each student)

Activity to Experience:

Cards with dots on them are randomly handed out to all the children in the class.

According to the number of dots on the card, each child forms a balanced statue shape with that number of body parts touching the floor.

Volunteers are given an opportunity to describe their shapes.

Children may wish to take a partner to make a combined shape that either represents the number of dots on one card or the total number of dots on their two cards.

Facilitation and Reflection:

How did you decide which body parts to place on the floor so you would not lose your balance?

How did you decide on the order in which you placed the body parts on the floor to maintain balance?

In what other ways could you represent the numbers on your cards?

Extensions:

Reverse the process. One student makes a statue shape. The partner then identifies the number and makes a different statue shape with that number of body parts touching the floor.

Grade 2 and older: Use nonlocomotor or locomotor movement to represent the number shown by the dots. Four dots on the card could be represented with four twists. The person representing uses learner SAY & DO, "TWIST, TWIST, TWIST, TWIST."

For other statue-shape activities, refer to Activities 17 and 26.

41 How Many Points of Contact?

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Number
Sets
Combining sets

Working in pairs, students determine the total number of body parts that are in contact with the floor as the partners copy each other's statue shape.

Materials:

None

Activity to Experience:

Students work with partners and explore statue shapes having varying numbers of parts of the body in contact with the floor. *Note:* You may wish to limit the number of body parts any one statue has in contact with the floor to no more than 15. The foot counts as one body part, and the *full* hand counts as one body part, unless only some fingers touch the floor; then the fingers can be counted individually.

One student makes a statue shape. The partner copies the statue shape one section at a time, and adds together the number of body parts as they are put in contact with the floor. Example: "I put 1 foot on the floor plus 1 knee, which equals 2 parts. Then 2 elbows make 4, and 1 hand makes 5. Adding the 3 fingers of the other hand gives me 8 body parts touching the floor."

The partner now is the leader in making a different statue.

Facilitation and Reflection:

How many different body parts touched the floor in your statue?

In making your statue, how did you decide which and how many body parts should touch the floor?

How did you decide the order in which to build your statue when you were copying your partner?

What are some other times when you add things up the way you added up the body parts touching the floor?

Extensions:

The follower establishes the total number of body parts in contact with the floor, makes the statue, and then begins to remove body parts from the floor, thus subtracting and yet trying to maintain balance.

Three or four students are in a group. All but one student makes a statue shape. The student responding identifies the number of floor-contact body parts for the first statue and then adds to that the total for the next statue, etc. Now the responder makes a statue with that total number of body parts on the floor. *Note:* Each statue would need to be given a limit, so the total for the three or four successive statues would not exceed 15.

Students can respond to the ***greater than*** (>) and ***less than*** (<) symbols, with one student making the same statue shape as another student, but with a different number of body parts touching the floor. For example, if the first student makes a statue shape with 9 parts touching the floor, the second student might use the ***less than*** symbol to show that his or her statue shape has 7 parts touching the floor and that 7 < 9.

42 Beat-Keeping With Mallets

Grade 2 and above

Key Experiences:

- **Moving with objects**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Patterning
Striking
Musical phrase
Musical form

Students work with the progression of basic mallet sequencing to establish easier to more-difficult patterns.

Materials:

One pair of mallets or rhythm sticks and four sturdy paper plates per student
Optional: Recording of *Popcorn* (RM7) and record, tape, or compact-disc player

Activity to Experience:

Two of the paper plates are lined up side-by-side, upside down. Students explore hitting the two paper plates with the mallets in single bilateral or alternating movements.

One student sets the beat, and all work with the single movement of hitting the two plates simultaneously. (For music educators, this is a lead-up to students playing a bordun on a barred instrument.)

Students alternate hitting one paper plate and then the other, following one student's lead (a lead-up to a broken bordun).

Students line up four plates side-by-side for sequenced mallet movements.

Different patterns are led by the students, such as strike the center two plates, then raise the mallets up to simulate a rest (BORDUN, REST), or hit the middle plates followed by the outer plates (contrary motion, which involves two sides of the body moving in a sequence away and toward the midline). These two patterns would be the next in order of difficulty in a progression from simple to complex.

Students number the four lined-up plates 1–4 from left to right. Other mallet patterns (progressing from easy to more difficult) that they might lead are these:

- Plates 1 and 2 followed by plates 3 and 4, or plates 1 and 3 followed by plates 2 and 4, or vice versa
- Plates 1 and 2 followed by right mallet alone on plate 4, or plates 3 and 4 followed by left mallet alone on plate 1
- Alternating crossover patterns: 1, 2, 4, 2, or 4, 3, 1, 3

Facilitation and Reflection:

What motions were the easiest (hardest) to do with the mallets on the plates?

How did you decide what tempo to use when you were the leader?

How would you describe the pattern you led?

Are there any other instruments on which we would see similar patterning, with or without mallets? (piano, organ, xylophone, bells)

Extensions:

Students work in small groups to design a mallet accompaniment to *Popcorn* (RM 7).

While sitting, pat the legs and pat the floor on either side to simulate the patterns the mallets performed—an example of the **simplify** strategy.

While standing, jump or step the feet in the same patterns. In place of plates, use squares on the floor or some other objects that will not slide.

Use eight plates, and design patterns.

43

Creating Designs

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Expressing creativity in movement**
- **Moving in sequences to a common beat**
- **Describing movement**

Curriculum Concepts:

Sequence
Planning movement
Design

Students create a design by planning a sequence of locomotor movements that will be used for their design. The completed design is drawn on paper before it is performed.

Materials:

Paper and markers

Activity to Experience:

Students, with a partner, design a floor pattern they will travel using locomotor movement.

Students decide on the locomotor movements they will use for their design and when each movement will change.

Students draw their design on a large sheet of paper and then try it out using the selected movements.

Any changes of movements are incorporated into the overall design, tried out, and then demonstrated for the class.

Facilitation and Reflection:

As you think about creating your designs with locomotor movement, what locomotor movements can you use?

How will you decide when to change your movements?

How will you create your design?

Describe your design.

When are floor patterns, which are like designs, used? (for dance, for sports, for marching formations)

Extensions:

One partner performs a locomotor movement in a pattern on the floor, and the other partner draws the design created.

Yarn is used to construct a design using the three basic pathways (straight, curved, zigzag). Movements for each pathway are chosen, and the design is put into movement.

Use vocal representation of the pathway to accompany the movement.

Also see Activity 38.

44

Creative Paper Plates

Grade 2 and above

Key Experiences:

- **Moving with objects**
- **Expressing creativity in movement**

Curriculum Concepts:

Representation
Creativity
Responding to music

Students work with a paper plate held in each hand, responding to the music with movement—first in personal space and then in general space.

Materials:

Record, tape, or compact-disc player
Recording of *Mindrele* (CD5)

Activity to Experience:

Students listen to part of the recording, then discuss how the music makes them feel and what kinds of movement might represent that feeling.

Students explore various nonlocomotor (anchored movement) responses to the music in personal space.

Students explore moving in general space to the music while continuing to work with the plates at various levels and in various directions.

Students work as partners or in small groups to interact with one another using the plates.

Partners or groups may wish to share some of their movements with the class.

Facilitation and Reflection:

How would you describe the mood of the music?

What types of movements did you like to perform to this music?

Describe one of the movements you chose.

When you worked with a partner or group, how did you keep from touching one another with the plates?

How does this type of creative movement differ from movement we have choreographed for folk dance?

Extensions:

Students may wish to create a movement score to sections of the music, which they then perform.

Working with a partner, students can join paper plates by holding their two plates back-to-back and then move with the plates united.

Use the plates for mirroring and for reversal movements. See Activities 53 and 73.

With the backs of the plates taped to the palms of the hands, draw pictures in the air.

Use the plates for aerobics. See Activity 57.

45

Estimating Distance and Time

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Describing movement**

Curriculum Concepts:

Estimating
Space awareness extension—size
Time awareness

Students estimate how many specific locomotor movements or how much time it will take them to reach a partner who is standing a specified distance away.

Materials:

Watches or stop watch
Foot rulers and yardsticks

Activity to Experience:

Students explore making even-sized locomotor movements (walking steps, jumps, hops).

Working as partners, students decide what distance they will put between themselves and their partners. If space is limited, all partners may use the same distance, e.g., the distance across the classroom.

One student chooses a locomotor movement and estimates how many walking steps (jumps, hops) it will take to cover the distance to his or her partner. Then he walks (jumps, hops) the distance to see how close the estimate is. The partner repeats the estimation process using the same or a different locomotor movement.

Students estimate and measure distance by using the feet heel-to-toe or other parts of their body. For example, they might "walk" the distance with a hand or a forearm to see how many hand or forearm placements it takes to cover a given distance. Students estimate the distance before using the movement.

Students also decide on the amount of time it will take to walk (jump, hop) a specified distance. Use a watch or stop watch to determine the time.

Facilitation and Reflection:

How did you make your walking steps (hops, jumps) equal-sized?

How did you figure out how many of your walking steps (hops, jumps) it would take to cover the distance?

What can you do to come closer with your estimation the next time you try to estimate a distance?

How would you compare the locomotor movements for distance between movements? Which seem to cover the shortest distance? Which the longest distance?

How did you decide how much time it would take to cover the distance?

Extensions:

Students can measure the distance (with a standard measuring instrument such as a ruler) after estimating and walking, hopping, or jumping the distance. Then they calculate in feet and inches the length of each walking step (jump, hop).

Students might decide to measure the length of their own feet in inches and estimate the number of steps (without knowing the exact measurement of the distance).

Estimate the number of walking steps (jumps, hops) that can be made in a specified time.

For younger children, see Activity 15.

46

Flipping Sticks

Grade 2 and above

Key Experiences:

- **Moving with objects**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Coordination
Sequencing
Tracking an object

Each student works with a stick held in each hand. Students explore ways to tap parts of their body with the ends of the sticks, to flip the sticks, and to pass the sticks from hand to hand. Then they develop sequences.

Materials:

One pair of lummi sticks per person (or PVC pipe cut in 10"–12" lengths as a substitute)

Optional: Selection from *Rhythmically Moving* or *Changing Directions*, such as *The Hustle* (RM9) and a record, tape, or compact-disc player

Activity to Experience:

Students explore tapping parts of their body and hitting the sticks together.

Students are encouraged to try half flips with the sticks, beginning with one hand and then the other hand alone, followed by two-handed flips. Students are reminded that learner SAY & DO (saying "FLIP" as the sticks are caught) aides success. Sequences are suggested by the students or the teacher and performed to a common beat. A sequence might include one flip and three rests, or two taps and a flip. Try adding known songs to the sequences.

Students explore changing the sticks from one hand to the other by tossing both sticks simultaneously. This new way of manipulating the sticks is added to sequences.

Students may suggest choreographing sequences to recorded music.

Facilitation and Reflection:

What helped you be successful when you flipped the sticks? When you passed them?

When we added the song, were there ways that helped you do the sequences while singing?

What was the easiest (hardest) movement you tried with the sticks?

Are there other times when you have to track (follow) the motion of an object?

Why is tracking someone else's motion harder than tracking your own?

Extensions:

Partners may wish to work together and pass the sticks back and forth as in lummi stick games.

Students may suggest creating a whole-group choreography with the sticks.

47

From Back to Front

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Kinesthetic awareness
Identification of shapes and letters

Students explore making and identifying geometric shapes and capital letters, "drawing" or "writing" them in the air and on each other's backs.

Materials:

None

Activity to Experience:

Students explore movement, "drawing" geometric shapes and letters on the floor and in the air using nonlocomotor (anchored) movement.

Each student then "draws" a shape or letter on the back of a partner, first telling the partner whether it will be a shape or a letter. (*Note:* Encourage students to use shapes and letters in which the finger is kept in contact with the back throughout the drawing.)

The partner responds to the tactile, first paying attention to how the shape or letter is being drawn on his or her back, and then drawing it in the air, in front of him or herself. The partners then change roles.

Students may suggest that numbers or musical notes be drawn. They also may suggest that the person whose back is being drawn on draw in the air simultaneously, while feeling the shape or letter on the back. *Note:* If the latter method is used, the person drawing should be encouraged to draw slowly.

Facilitation and Reflection:

Describe how you are making the geometric shape or letter. Where did you begin?

What did you do to figure out how the shape (letter) was drawn by your partner?

What would you want to tell your partner to make your task easier?

When drawing in the air while someone draws on your back, what helps you to have success?

Extensions:

Reverse the roles. One person draws the shape or letter in the air, and the partner then draws it on his or her back.

One person draws one line at a time with two fingers (using both hands) or one finger, and follows it with one to five taps on the back. If the line is drawn from low to high with two fingers simultaneously, followed by two taps, the partner does two jumps straight ahead. If one finger is used from high to low on the back, followed by three taps, the partner does three hops backward. If the fingers alternate on opposite sides of the back, a walking movement is indicated.

For an additional tactile activity, see Activity 32.

48

Greater or Lesser Numbers

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Understanding greater (>), lesser (<) numbers
Representation

Students work with the symbols > and <, using nonlocomotor movement. They represent the answer to the problem with movement, using learner SAY & DO with their number.

Materials:

Cards, each with one of the numbers 4 through 8 written on it
A card with the "less than" (<) symbol
A card with the "greater than" (>) symbol

Activity to Experience:

Students explore with their bodies the greater than (>) and less than (<) symbols and share their ideas with the class.

Students each draw a number from 4 to 8 and represent the drawn number by using nonlocomotor movement with learner SAY & DO. (For example, if 4 was drawn, the student swings both arms 4 times.)

One student shows the card with the symbol for greater than. The others then each represent with locomotor movement a number that is greater than the drawn number, using learner SAY & DO. For example, if Jacob has drawn the number 4, and the leader presents a > symbol, Jacob could say "6 is greater than 4," and then proceed to use SAY & DO with a nonlocomotor movement (swing) 6 times. He might say "SWING, SWING, SWING, SWING, SWING, SWING" in time to his movements.

Once the students understand the activity, they may continue in partners or small groups that will give more students the opportunity to be the leader.

Facilitation and Reflection:

What are some ways to show with your body the symbols for greater than and less than?

How did you remember what symbol the leader was showing on the card?

How did you plan your solution with learner SAY & DO so you knew when you reached the final movement?

What other ways do you see the less than, greater than symbols used? (accent mark, getting louder and getting softer, as the end of an arrow, acute angles)

Extensions:

The leader shows his or her number and then, with learner SAY & DO, represents a number less than or greater than that number. The class indicates whether the number demonstrated was less than or greater than the leader's number. Then each person represents the same number as the leader, using a different movement.

Repeat the activity using locomotor movement or movement with objects. The class might choose ball bounces or taps of the rhythm sticks for the movement.

Form groups of one less than (<) or one greater than (>) a given number when the appropriate symbol is shown. Groups choose a movement and synchronize it, using learner SAY & DO.

49

Hearing and Responding

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Space awareness
Auditory responding

Students, working as partners, give each other verbal directions for ways to travel about the space. The partner responding to the verbal directions is blindfolded.

Materials:

Blindfolds for half of the children

Activity to Experience:

Each student takes a partner. The partners practice giving each other verbal directions (without demonstrating) for locomotor movements, such as "jump forward four times." The signal to stop can be given by the leader at any time to avoid collisions with others.

One student in each pair puts on a blindfold and follows the verbal directions of the partner. All the students are moving about the space at the same time. The signal to stop is given by the leader when needed to avoid collisions.

The activity is continued, with the other partner blindfolded.

Facilitation and Reflection:

To the person blindfolded: What types of directions were easiest for you to follow? Hardest?

To the person giving directions: How did you decide what locomotor movements to give your blindfolded partner so no collisions occurred?

When might you need to give someone verbal directions for movement without being able to show them what to do? (giving directions to the driver of a car, helping a pedestrian or a bike rider to avoid a collision)

Extensions:

Rather than working with partners, younger children can individually give verbal directions to the entire class.

The blindfolded partner may be asked to repeat the directions before acting upon the verbal directions.

The students may decide to give multiple directions before the partner responds.

Students, with their partners, can work across the gym using only forward and backward directions—a **simplify** strategy. Sideward can be added for movement across the gym. (The student would face one of the ends of the gym for this response.)

Locomotor movement extensions (size, level, intensity) can be added, as well as movement combinations (two jumps and one hop).

This same activity may be used with nonlocomotor movement.

50

Human Clock

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Representation
Understanding positions of numerals on clock face
Telling time

Students, working with imaginary clocks, move to the numerals on the edge of those imaginary clocks. They also use the two legs in movement to represent specific times selected.

Materials:

Card with a clock face drawn on it

Activity to Experience:

Groups of students review how the face of a clock has numerals around its outer edge.

Students stand in the center of their own imaginary clock faces and explore moving with locomotor movements from the center of their clock face to specified numerals on the outer edge of the face, as shown on the next page.

Students in small groups give one another problems to solve with movement, such as, "You are facing 12. Jump to 3." *Note:* In the beginning it is easier to use a common starting place, returning to face 12 after each problem. See next page.

Students may decide to represent a specific time, such as 10 minutes after 6:00. They represent it by moving the two feet to the numerals 2 and 6 in the way the leader indicated they move, such as jump or hop to one number and step to the other. Groups may wish to pose similar problems to the rest of the class.

Facilitation and Reflection:

When Jason gave the problem to jump to the numeral 5 and then to the numeral 7, how did you solve that problem? Which way did you face for the two jumps?

When Sylvia gave the problem to represent 10 minutes to 4, how did you solve that problem? (Students could jump from the center and land both feet simultaneously on the two numerals, or they could place one foot at a time, and which one was placed first?)

When we travel around the room in a dance sequence and we use the words "clockwise" and "counterclockwise," what do we mean?

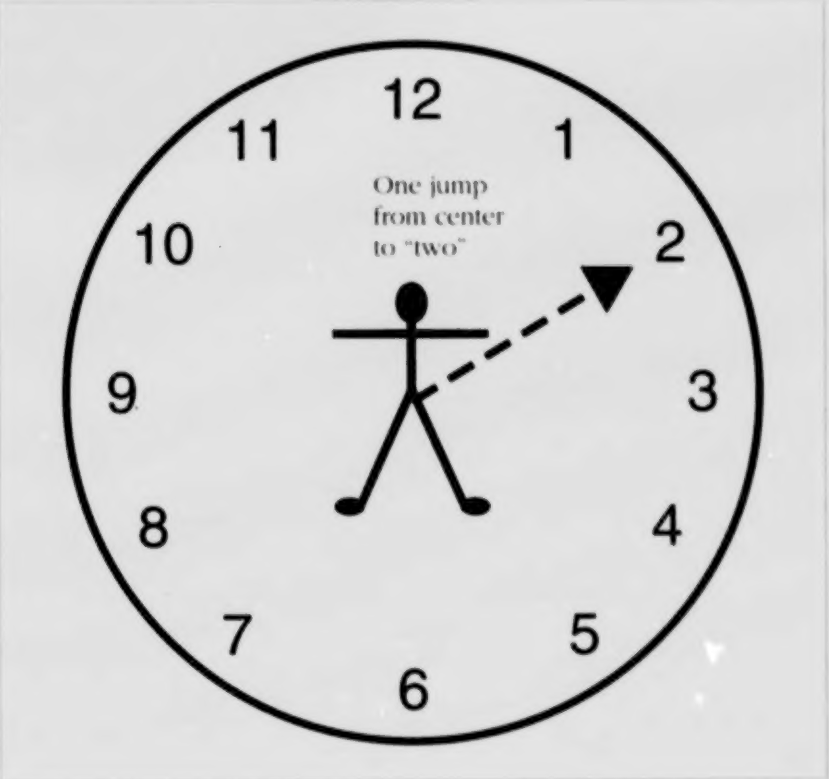
What other things have a face similar to a clock face? (compass, dials on the stove, score clocks, stop watches, etc.) Are they numbered the same way?

Extensions:

The arms can point in the direction of the two numerals for the time given.

A certain number of steps can be taken to the first numeral for the time; retrace those steps to return to the center, and then move to the second numeral.

Grade 3 and above: The points of a compass may be used instead of the numbers on a clock face. Now the students begin by facing North and move to the East, South, Northwest, and so on.



51

Matching Statues

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Describing movement**
- **Acting upon movement directions**

Curriculum Concepts:

Thinking and language
Aural responding
Planning
Body and space awareness

Two students in each group of four stand facing away from each other and each of these two students forms a statue shape. The other two students, alternately giving one verbal direction at a time to each of the statues, try to make the statues match.

Materials:

None

Activity to Experience:

Groups are formed consisting of four students each. Two of the students in each group face opposite directions, so they can't see each other, and each makes a statue shape.

The other two students in the group each give verbal directions to *one of the two statues*, trying to describe how he or she can copy the partner's statue.

One of the direction-givers begins by giving a single verbal direction to the chosen statue, who then acts upon the verbal direction. The other direction-giver then gives a single verbal direction, to which the other statue responds. The object is to eventually have the two statues match with no visual cues being given. *Note:* The statues should not be directed to create a position that is totally different from their original statues (such as directing one statue to "stand up" and then directing the other statue to "stand up"). This would not follow the intent of creating a match between the statue shapes.

Repeat the activity with the partners who were statues now becoming the direction-givers.

Facilitation and Reflection:

To the statues: What types of directions were easiest for you to respond to?

To the persons giving verbal directions: How did you decide what direction to give your statue first?

What strategies did you use to make the statues match?

Extensions:

In a first-grade class, create team A and team B. Two children are selected (one from each team) to form statue A and statue B. With a screen between them, the two statues face the class. The two teams alternate giving directions to their statues (Team A to Statue A and Team B to Statue B). The goal is to have Statue A match Statue B.

Simple statue-matching can be used with younger children. Children can copy the statue made by one person in the class or work as partners and copy each other. See Activity 17 and Activity 26, which is an extension of Activity 17.

52

Mirroring

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving with objects**
- **Acting upon movement directions**

Curriculum Concepts:

Mirroring
Visual tracking

Students hold a paper plate in each hand. After exploring slow dynamic movements they can do with the plates, they take a partner and visually lead the partner, who mirrors the movements. Music is added.

Materials:

Two paper plates for each student
Record, tape, or compact-disc player
Recording of *Sally Gardens* (RM1)

Activity to Experience:

Students explore slow dynamic movements with the paper plates, first without music and then to the musical selection *Sally Gardens* (RM1). Encourage students to try symmetrical movement with both hands (or arms) and movement with one hand or the other hand.

Students, working in pairs, each face a partner and lead him or her with slow dynamic movements, which the partners visually mirror by watching and copying.

After both partners have had a chance to be the leader, students respond to the musical selection and lead their partners.

Individual students volunteer to be the leader for the entire class.

Facilitation and Reflection:

How did you decide what movements to use?

As your partner moved, which movements were the easiest to mirror? Which ones were the hardest to mirror?

What strategies did you use to follow your partner successfully?

How did your movements change when the music was added?

How might other types of music change the movements you were using?

When might you have to watch and copy someone who is using dynamic movement? (learning sport skills, learning to play instruments, trying to do what brother or sister is doing)

Extensions:

Partners place their paper plates so they touch. They move the plates together, with one partner designated to initiate the movement.

Perform patterns of leg movements, and integrate moving the legs with the arm movements while holding plates.

Choreograph a sequence of movements to perform to the music.

Substitute other objects, such as scarves or rhythm wands.

Grade 3 and above: Partners try right and left reversal. See Activity 73.

53

Moves to Remember

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Describing movement**
- **Acting upon movement directions**

Curriculum Concepts:

Kinesthetic memory
Kinesthetic awareness
Describing movement—recalling

A leader molds a partner into a statue shape. The partner describes each movement after it is finished and remembers the order of the movements. After "erasing" the statue, the partner forms it again, using the same sequence of movements from memory.

Materials:

Blindfolds for half of the children

Activity to Experience:

Each student in the class has a partner. One student in each pair is blindfolded. The leader begins to mold the blindfolded partner into a statue shape. After each single movement, the statue describes the movement ("You placed my right arm over my head with the elbow bent").

The leader continues using movements one at a time that the statue describes at each step. Both students remember the sequence. *Note:* The teacher may wish to limit the total number of movements used to four and then raise the number to whatever the class suggests.

The partner holding the statue shape thinks about the order of the movements, then "erases" the statue, and then forms the statue again, using the same movement in the same order.

Facilitation and Reflection:

To the blindfolded partners: What types of movements were easiest to describe? What helped you remember the order of the movements?

To the partner making the movement decisions: How did you decide what movement to do? How did you decide on the order of the movements? What helped you remember the sequence?

What other activities or events require us to remember a sequence? (plays in sports, sequences in a drama, order of adding ingredients when helping to make cookies)

Extensions:

The leaders might try to form themselves into the statues they created for their partners, using the same order of movements.

The leader might first tell the statue about each movement before moving a particular body part into the desired position. This involves planning and describing. In this extension, the blindfolded partner (statue) does not describe the movement.

Number the moves in Spanish or French, or in the language a class member speaks at home.

Number the moves so the leader can request the statue to do the "third movement followed by the fourth movement," etc.

Echo movements also require remembering movement. See Activities 27, 28, and 67.

54

Moving to a Rhyme

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequencing
Combining moving and speaking

Groups of students join four two-movement sequences together with learner SAY & DO and then add the eight movements to a known four-line rhyme.

Materials:

None

Activity to Experience:

Students explore two-movement sequences with learner SAY & DO.

Working in pairs, partners teach each other a two-movement sequence. They unite those two sequences into a four-movement sequence with learner SAY & DO.

Two sets of partners join, and each pair teaches their four-movement sequence to the other pair. They unite those sequences, with learner SAY & DO, into an eight-movement sequence.

When the total sequence is secure and has been repeated several times, the sequence is joined with a four-line rhyme, such as "Hickory, Dickory, Dock." Each line is synchronized with one of the two-movement sequences performed on the macrobeat.

Students may wish to perform the sequence on the microbeat. In this case, each two-movement sequence is repeated twice before adding the next two-movement sequence, *or* the complete sequence is performed twice to accompany saying the rhyme.

Facilitation and Reflection:

How did you decide which sequence would be first in the four-movement sequence? In the eight-movement sequence?

What helped you to remember the sequence when the rhyme was added?

In what other ways have we combined moving and speaking?

What other ways have we used sequences?

Extensions:

Work with a longer or shorter movement sequence performed to a rhyme. For example, perform only one two-movement sequence throughout the rhyme.

Repeat the same two-movement sequence throughout saying the rhyme.

Perform locomotor movements as in Activity 18 or combinations of nonlocomotor and locomotor foot movements while saying a rhyme.

Perform integrated movements to rhymes.

55

Plate Dancing

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Moving with objects**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequencing
Space awareness
Steady beat
Musical phrase

Students stand on two paper plates and explore locomotor ways to move while keeping their feet on the plates. From the sequences that are shared, students create a dance to the music.

Materials:

Two paper plates per person
Record, tape, or compact-disc player
Recording of *Tipsy* (RM6)

Activity to Experience:

Each student places a paper plate under each foot and explores moving about the space. Ways to move are shared and copied by the class.

Students listen to and explore moving to the music with sequences of movement. Students volunteer to share their sequences, and the class copies.

In small groups, students design an eight-beat dance to the musical phrases. They share their creations.

A class dance is created and performed.

Facilitation and Reflection:

Describe some of the ways we moved without the music.

In what ways did the music tell you a way to move?

How did you decide on the sequences to use in the dance?

What other objects could be used for dancing?

Extensions:

Create partner dances to the music.

Younger children travel with skating steps alone and then in short trains of two, three, or four people. Add music for the skating movement.

Do square dancing with paper plates under the feet.

Use paper plates for aerobic sequences. See Activity 57. For creative movement, see Activity 44.

56

Passing Game Lead-Up

Grade 2 and above

Key Experiences:

- **Moving with objects**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Passing
Sequencing

Students synchronize their timing to pass an object back and forth to a partner and then around a circle.

Materials:
One beanbag or some other object for each student to pass

Activity to Experience:
Partners sit facing each other and pass a beanbag back and forth. To "pass" it, they place it on the floor in front of their partner while simultaneously saying the word "PASS." The partner then picks it up and "passes" it back with the word "PASS."

Partners pass two beanbags between them, synchronizing placing the bag on the floor with saying the word "PASS." To make it more successful, they add another word as they each pick up the beanbag, such as "WAIT." This added word while picking up the beanbag puts the passing into a two-beat ("PASS, WAIT") sequence.

When students are ready for the challenge, they form one large circle or two or three smaller circles. Each student has a beanbag. As a beginning **simplify** strategy, all the students can simulate passing their bags in one direction by saying "PASS" as they each place a hand in front of the person to the right (or left). They bring the hand back to simulate picking up the bag that has been passed to them, using some other word ("WAIT") with that motion.

Students incorporate the beanbag while retaining the learner SAY & DO (two motions synchronized to the two words). A rhyme, song, or recorded music may be added as skill becomes evident.

Facilitation and Reflection:
How did the words you spoke help you with the passing?

When we were in the circle, what strategies helped everyone to pass at the same time?

What other ways might we use to pass an object?

Extensions:

See Activity 69.

Pass a ball by tossing it back and forth to a partner, and then add larger groups. For more complexity, give each person a ball, and all pass at once around a circle.

57

Plate Aerobics

Grade 2 and above

Key Experiences:

- **Moving with objects**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequencing
Microbeat
Visual tracking
Musical phrase

Students hold two paper plates and explore ways to hit the plates together, to hit their body with the plates, and to sequence movements with the plates.

Materials:

Two paper plates per person
Record, tape, or compact-disc player
Recording of *Mexican Mixer* (RM3)

Activity to Experience:

With one plate held in each hand, students explore ways to hit the plates against their body and then hit them together away from their body, such as overhead, to one side, under one leg, behind their back. They share their ideas.

Working as partners, students explore ways to create two-motion sequences with the plates. Partners share with the class.

Students listen to the music and explore movements that will go with the phrases and the sections of the music.

Students lead the class to the music.

Facilitation and Reflection:

How did you hit the plates against your body? Away from your body?

What sequences of movements were successful in this faster microbeat tempo? Were any movements changed when music was added?

What other objects might be used for fitness movements?

Extensions:

Divide children into three groups, for the A, B, and C sections of the music: One group choreographs the A section movements; one group, the B section movements; and one group, the C section movements. The final piece is performed. The selection is organized as follows: AA (64 beats), B (64 beats), A (32 beats), C (64 beats), A (32 beats).

To **simplify,** use all single movements and omit the sequences.

Add leg sequences to the arm patterns, such as raising one knee up and hitting the knee, then hitting the plates together as that leg comes down and the foot steps.

Use the paper plates creatively as in Activity 44.

58

Robots

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Describing movement**
- **Acting upon movement directions**

Curriculum Concepts:

Responding to visual cues
Thinking and language
Space awareness—direction

Students are divided into partners. One partner is the robot, and the other partner gives hand signals for the desired movement direction. Music is added.

Materials:

Record, tape, or compact-disc player
Recording of *Popcorn* (RM7)

Activity to Experience:

Students explore robot-type movements and describe the types of movements they have chosen to use.

Students listen to the recording of *Popcorn* and synchronize their movements to the beat of the recording.

Students individually decide on the hand signals they will use to direct their partner's movements *toward* and *away, to one side* or *to the other side,* and to stop.

Students work as partners, directing each other's movements with the hand signals that the partners have agreed upon.

Partners extend the experience by moving to the beat of the music when they are ready to do so.

Facilitation and Reflection:

Describe how your legs moved like a robot.

What made your partner's hand signals easy or difficult to follow?

How did you determine what hand signals to use?

What are some other times when you might watch and follow someone's hand signals? (policeman, sign language)

Extensions:

Verbal directions are given to the robots. Refer to Activity 49 for an example of giving verbal directions.

Robots synchronize steps and motions and create a robot dance.

Tactile signals are given to the partner. (For example, two taps on the outside of the right shoulder means to move two steps to the right side.) An additional tactile experience is found in Activity 32.

Use sign language to give movement directions in a visual way.

59

Same and Different

Grade 2 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Same and different
Visual tracking

Working as partners, students lead each other in movement to which the response is either the *same* or *different* but always in the same timing the leader is using.

Materials:

Record, tape, or compact-disc player
Recording of *Bechatzar Harabbi* (RM6)

Activity to Experience:

Students listen to the recording and explore nonlocomotor (anchored) movements to the beat of the music. Several volunteers share their movements to the music, and all copy.

Partners are formed, the leader in each pair shares one of the movements he or she explored, and the follower copies. (This step does not include using music.) The follower tries to perform the movement with the same timing used by the leader. *Note:* A successful strategy for the follower to use is to SAY a word that corresponds to the leader's movement before copying the movement. For example, the follower might say "SWING, SWING, SWING, SWING" before joining the movement.

Leaders demonstrate their nonlocomotor movements again, and the followers try to do a different type of movement but use the same timing that the leader is using. (Leader may be swinging the arms; follower may choose bending and straightening.) *Note:* Again suggest that followers SAY the word corresponding to the movement they will use before beginning.

Leaders match their movements to the beat of the music, and followers copy with the same movements and then with different movements.

Facilitation and Reflection:

What nonlocomotor movements did you feel fit the music?

What did you find to be helpful when you were trying to copy the leader? What did you call your partner's movement?

What do we mean when we say we use "the *same* movement"? When we say we use "a *different* movement"?

Can you think of other times when you might copy the movement of a leader (do the same movement) or create a movement different from that of a leader?

Extensions:

Younger learners: One person may wish to lead the class.

For a **simplify** strategy, omit the synchronization of movement to music.

Students may decide to use all single or all sequenced movements.

The concept of *same* movement could be used with extensions: A leader swings arms back and forth in front of the body. The follower swings back and forth but in a different direction or at a different level or intensity.

60

Sounds

Grade 2 and above

Key Experiences:

- **Moving with objects**
- **Feeling and expressing steady beat**
- **Acting upon movement directions**

Curriculum Concepts:

Beat
Making sounds
Identifying sounds

Students explore sounds they can make with their sticks. They also create sounds that keep steady beat.

Materials:

Bobbins (8-inch quills) or rhythm sticks

Activity to Experience:

Students explore making sounds by hitting the bobbins together or against their body. Individuals share their explorations with the class.

After several students have shared how they made their sounds, they explore how to keep steady beat with the sounds. Individuals share and then add words that label the sounds or movements, thus creating learner SAY & DO. (The words are added after the class successfully copies.)

Facilitation and Reflection:

What does your sound remind you of?

What types of sounds with movement were easiest (hardest) to follow?

What types of movements with the bobbins were easiest (hardest) to perform in steady beat?

What helped you to keep steady beat with your sound?

What sounds might you hear during the day that are in steady beat?

Extensions:

Walk a steady beat while using the bobbins in a rhythm pattern.

Extend single steady beat movements to sequences of steady beat movements, such as two taps of the large ends of the bobbins, one rub of the metal, and one hit of the bobbins together.

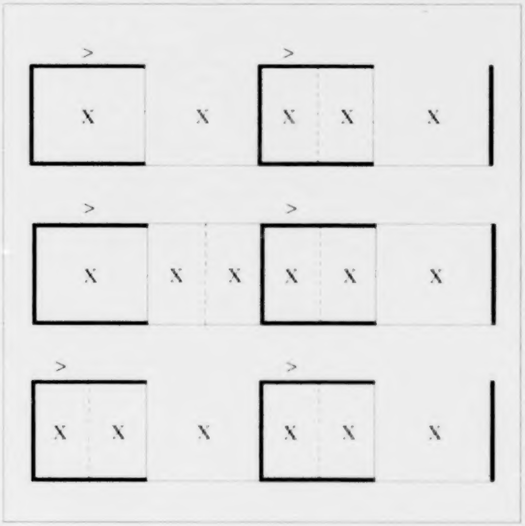
Use other objects for beat, such as paper plates and unpitched percussion instruments (wood block, triangle, drum). See Activity 57.

Use the bobbins as mallets to strike paper plates turned upside down. This provides a preparatory exploration before the barred instruments are used. See Activity 42.

Children younger than second-graders can keep steady beat and create simple beat patterns, such as one tap on the knees, then one tap on the shoulders.

Record steady beat sounds heard during the day, and represent them with movement.

Grade 3 and above: With the bobbins, create four-beat rhythm patterns like the ones shown here. In these beat-box diagrams, each "X" represents a movement with the bobbins.



61

The Sum Moves Like This

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Acting upon movement directions**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Number
Addition

Students work alone or with partners to represent two numbers with two different locomotor movements. The class gives the sum of the two numbers. The leader indicates the action to be used with learner SAY & DO, so all perform the designated movement the number of times to represent the answer.

Materials:

None

Activity to Experience:

Students select two numbers and decide on two different locomotor movements to represent the respective numbers. *Note:* You may wish to limit the sum of the two numbers to 12 or less.

A pair of students uses movement to present the two numbers to the class. *Example:* Jane jumps 4 times and then Mike steps 6 times.

The class gives the sum of the two numbers. Jane and Mike have indicated the class should skip their answer so they skip 10 times, moving about the space. As they skip, they use learner SAY & DO, matching the skipping action to the word "SKIP" spoken 10 times.

A different pair of students presents the next pair of numbers to be added.

Facilitation and Reflection:

How did you decide what movements to use to represent your numbers?

What strategies did you use to figure out the sum?

How did you keep track of the number of times you performed the locomotor movement when you were using learner SAY & DO?

Extensions:

The leader represents one number (addend) and a sum. The class decides what other number is needed to arrive at the given sum.

The leader gives only the sum, and partners show two numbers that add to that sum.

Give subtraction problems using the same strategies.

Give three-step problems—two additions plus one subtraction.

Partners write the problems on paper after each solution is determined.

Use nonlocomotor movement instead of locomotor movement.

62

What Else Do You See?

Grade 2 and above

Key Experiences:

- **Moving in locomotor ways**
- **Describing movement**
- **Expressing creativity in movement**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Kinesthetic awareness of movement
Thinking and language
Steady beat

Students listen to the music, explore locomotor movement, and decide on a specific movement they wish to perform to this musical selection. Before showing the movement, a student leader decides on one aspect of the movement to describe. Followers add information about other aspects of the movement.

Materials:

Record, tape, or compact-disc player
Recording of *Twelfth Street Rag* (RM5)

Activity to Experience:

Students listen to the recording, explore various locomotor responses, and decide on a locomotor movement they will share.

Each student determines one aspect of the movement that he or she will verbally share with others. For example, the student can say, "Each step will move from heel to toe."

In groups of three, one leads the others with the chosen movement. No music is playing.

When all stop, each follower shares an additional aspect of the movement performed, e.g., "The steps were large," or "The arms swung out to the sides in big movements."

The other students take their turns as leaders of their groups.

The followers recall all the movements, performing them without their respective leaders.

The music is played, and each leader in turn leads to the music.

Facilitation and Reflection:

Describe the movement you chose to represent the music.

What was there about the music that made you want to move in the way you did?

How did you decide what to first tell your group about your movement?

How did following the leader help you add to your leader's description of the movement?

Extensions:
With younger learners, you may wish to have one person at a time lead the entire class.

Play another musical selection, explore movement to it, and discuss how the movement changed for the second musical selection.

Students may write about the movement they led and how it fit the music.

63

Aerobic Integration

Grade 3 and above

Key Experiences:

- **Moving in integrated ways**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Integrating movements
Musical form

Students unite arm and leg patterns to produce an aerobic fitness routine.

Materials:

Record, tape, or compact-disc player
Recording of *Irish Washerwoman* (RM5)

Activity to Experience:

Students working in small groups explore lower-body locomotor and nonlocomotor sequences they can use for an aerobic routine and then explore upper-body nonlocomotor sequences.

Students work on integrating arms and legs in aerobic sequences. Different groups' ideas are shared with the class and tried out.

Students listen to the music and decide on sequences that seem to best fit the music. They work with the form of the music (AABB). Because this is an aerobic routine, the microbeat is used throughout.

Students devise an aerobic routine that they feel is most appropriate for the music. They lead their routine for the rest of the class to follow.

Facilitation and Reflection:

What movement sequences did you feel successful using?

When you integrated the movement sequences, what seemed to be the most successful arm and leg movement combination?

What integrated sequences were most successful with the music? Did you change your ideas because of the tempo of the music?

When can we use integrated sequences of movement other than in aerobic routines?

Extensions:

One student might wish to lead the class extemporaneously to the music.

Try other musical selections, and compare the movements chosen for different tempos.

Younger children can lead nonlocomotor *or* locomotor movements with or without music.

Choreograph an aerobic routine to the music.

Use the integrated movements with a low platform (step aerobics).

Use objects, such as paper plates. See Activity 57.

64

Categories of Nouns

Grade 3 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**
- **Moving in sequences to a common beat**

Curriculum Concepts:

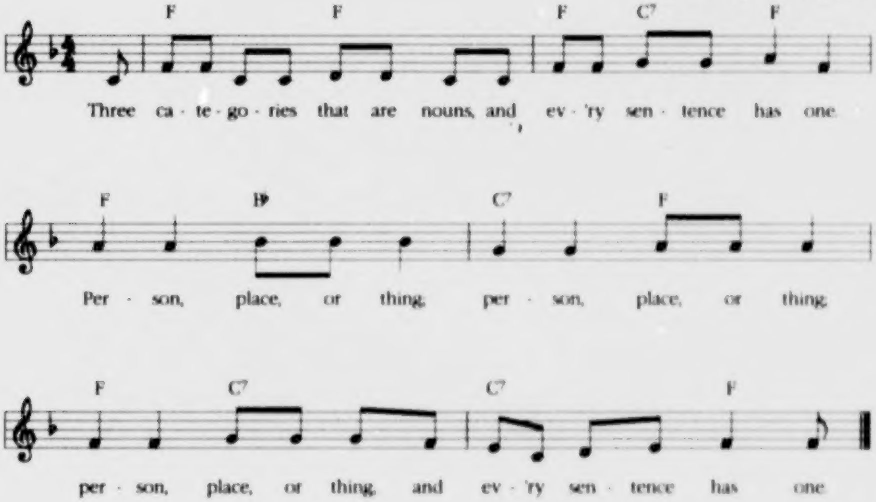
Nouns and categories of nouns
Macrobeat
Musical form

Students make lists of the three categories of nouns—person, place, and thing. They keep the beat with macrobeat movements during the song, then continue the movement and respond with a noun from the category chosen. Sequenced movements are added when students are ready.

Materials:

Three Categories That Are Nouns

Text by Crystal Duncan
Catawba College, Salisbury, NC


F
F
F
C7
F
Three ca - te - go - ries that are nouns, and ev - 'ry sen - tence has one
F
B♭
C7
F
Per - son, place, or thing, per - son, place, or thing,
F
C7
C7
F
per - son, place, or thing, and ev - 'ry sen - tence has one

Activity to Experience:
Students discuss what nouns are and make lists of nouns, arranging them under the three categories of *person, place,* or *thing.*

Students decide on one of the categories. One student begins a movement, setting a fairly slow tempo for the steady beat. All match the beat with the **anchor word** spoken by the leader. Students take turns saying a noun in the category. One beat occurs between each spoken word. For example, pat knees on the accented syllable of a noun spoken by one student, pat knees again before the next noun is spoken, pat knees with a second student speaking a noun. The following beat-box diagram shows how this would work for the category of *place.* Each "X" represents a pat. The accented syllables are underlined.

X	X	X	X	X	X	X	X
Boston		At- lanta		De- troit		Dallas	
first student		*second student*		*third student*		*fourth student*	

Students might work in groups of four or eight, so all students in the group have the opportunity to give a noun. Begin with single movements, and then later increase the complexity with two-motion sequences. The noun is spoken with the first movement.

Sing the song, keeping the macrobeat in the way the student leader chooses. At the end of the song, keep the beat and add the nouns on each macrobeat or every other macrobeat for a total of eight macrobeats. Sing the song again, thus creating ABA form.

Facilitation and Reflection:
What are several examples of nouns? Person nouns? Place nouns? Thing nouns?

How will you decide on the noun to use when it is your turn?

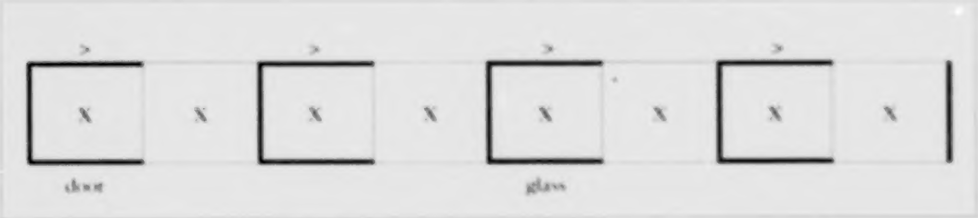
What can help us to keep the macrobeat steady?

What musical form did we use? Where else, other than in music, do you find the ABA form used? (Oreo cookie, pattern in a print)

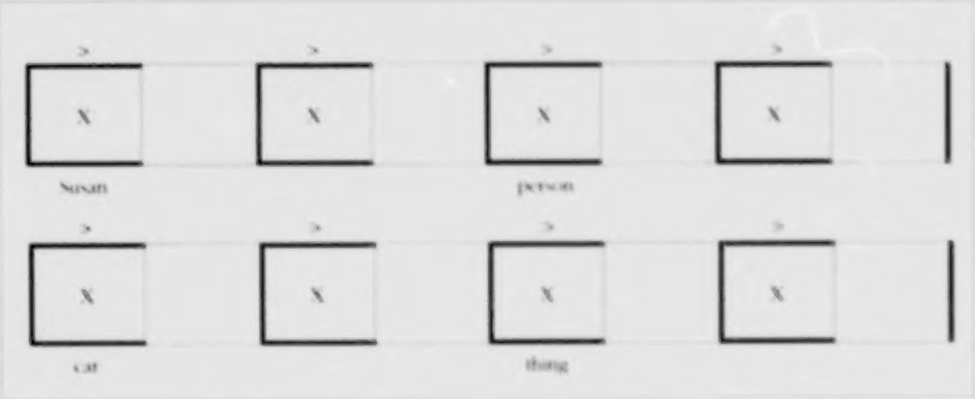
Extensions:
Give a noun on each macrobeat.

Sing the name of the noun, using pitches that are in the same key used for the song.

Walk macrobeat or microbeat while singing and giving the noun examples. If microbeat is used, students might choose to say the noun on the first of four walking beats, as shown below.



Another alternative is shown below. On the first macrobeat, one student says a noun on a rocking motion, and the group says the noun's category on the third macrobeat. (Macrobeats two and four are rocks without a noun or a category spoken.) The pattern continues as each student has a turn saying a noun and the group answers with a category.



65

Combining Beat and Rhythm

Grade 3 and above

Key Experiences:

- **Moving in integrated ways**
- **Feeling and expressing steady beat**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Beat
Rhythm
Sequencing integrated movement

Students layer rhythmic sequences in the upper body against four steady walking beats. Working in groups of four, students create longer movement pieces of 16-beat duration.

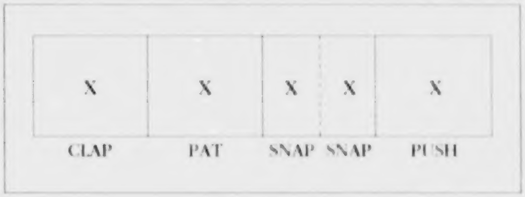
Materials:

None

Activity to Experience:

Students create sequences of arm movements in a 4-beat rhythm pattern decided on by the class. They use learner SAY & DO in performing the sequences. The rhythm might be the one shown at the right below.

The arm movements are CLAP for the first beat, PAT both knees at once for the second beat, SNAP/SNAP with alternating hands on the third beat, and PUSH both arms away from the body on the fourth beat.



Students try their sequences while walking to the steady beat.

Students are encouraged to share their sequences, and all copy.

Students decide to work with partners. They create other sequences of movement to different 4-beat rhythm patterns. They walk steady beat while performing the sequences.

Students select groups of four and choreograph a 16-beat movement piece by combining each person's 4-beat rhythmic sequence.

Facilitation and Reflection:

What movements in the rhythm pattern did you find easy to sequence? Difficult to sequence?

What strategies did you use to keep the underlying beat steady?

How did you decide on the order of your 16-beat rhythm pattern?

How many different ways can we define rhythm?

In what other ways might we experience rhythm?

Extensions:

Choreograph hand-jives with partners. See Activity 68.

Perform the movement sequences to music.

Begin with single movements, such as all pats or all snaps, in the rhythm patterns.

Keep the steady beat in the upper body and walk rhythm patterns. See Activity 76.

66 Combining Sequences

Grade 3 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequences
Combining sequences
Musical form

Students listen to the music and construct 4-movement sequences. They each join a partner, and partners then teach their sequences to each other with learner SAY & DO. They decide on which sequence will come first as they unite their sequences into an 8-movement sequence. Pairs join other pairs and teach each other. They unite movements into a 16-movement sequence.

Materials:

Record, tape, or compact-disc player
Recording of *Bekendorfer Quadrille* (RM4)

Activity to Experience:

The music is played, and each student selects a 4-movement sequence to perform to the macrobeat.

Each student joins a partner, and the partners teach their 4-movement sequences to each other with learner SAY & DO. They unite their sequences into an 8-movement sequence. They SAY the sequence and then SAY & DO.

Students will enjoy the challenge of two pairs joining to make groups of four. All teach their sequences, which are united with learner SAY & DO, to form a 16-movement sequence.

Each person leads to the music—first person to the A sections, second, third, and fourth persons to the B, C, D sections. (Each repeated section of the music has 16 macrobeats. Thus a person's sequence is led four times in succession.)

The second time the music is played they may decide to unite the first and second persons on the A (8-movements), the third and fourth persons on the B (8-movements), and then the 16-movement sequence on the combined C and D sections of the music.

Facilitation and Reflection:

How did you decide on your sequence?

What teaching strategies did you use for your sequence?

How did you decide on the order of the sequences?

What are some other occasions when we might have long sequences of movements?

What form are we representing in this music?

Extensions:
On the third repeat of the four sections of the music, have someone randomly call out the order of the sequence, such as third person's, second person's, first person's, fourth person's, or first and fourth persons unite their sequences followed by the second and third.

Try performing a **canon** movement sequence. This means that the second person begins on the B section of the music but with the first person's sequence, etc. If the first person begins on the A section of the music with arms doing OUT, IN, UP, DOWN and then doing HEAD, SHOULDERS, KNEES, SHOULDERS for the B section, the second person begins with OUT, IN, UP, DOWN as the B section of the music begins.

Can two groups join for a 32-motion sequence? If students suggest it, the challenge is worth the time to try it.

See Activity 71.

67

Echo Canon

Grade 3 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Feeling and expressing steady beat**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Canon
Macrobeat
Visual tracking

Students review single and sequenced nonlocomotor movements using steady beat. They lead one another in canon movement without music and then synchronize their movements to music.

Materials:

Record, tape, or compact-disc player
Recording of *Hot Pretzels* (RM8)

Activity to Experience:

Students review and explore their own single and sequenced nonlocomotor movement, keeping steady beat for the movement. The movements are performed at a slow tempo.

Students recall the concept of *canon*. The teacher leads the class in canon movement, beginning by performing two slow single movements. The followers begin with the teacher's first two movements as the teacher continues with the second two movements. The class is watching the new movement while performing the one completed by the leader. The followers start at the beginning while the leader goes on, so the followers are always behind in copying the movements of the leader, as shown in the beat-box diagram on the next page. This procedure reinforces the musical concept of *canon* (see next page).

Students in small groups work with canon movement, beginning with all single movements. After each student has had the opportunity to lead, the groups may decide to try two-beat sequenced movements. Each sequence would be shown two times before it is copied. The leader proceeds to the new sequence while the followers do the completed one.

Play the music for students to work with in macrobeat. When leading, they begin the two-macrobeat movement at the start of the musical phrase.

Facilitation and Reflection:

What does the concept *canon* mean?

As we perform movement that will be followed with the canon concept, what strategies can we use to remember the movement to copy and prepare for the new movement to copy?

When you are the leader, how do you hold your concentration and prepare for the next movement, beginning it at the right time?

When might you see the idea of a *canon* used? (singing, orchestra pieces, a person signing as someone is speaking)

Extensions:

Begin with single movement and sequenced movement echo. See Activity 27 and Activity 28.

Divide into groups of three, and plan echo canon movements to the music *Oh How Lovely* (RM1). (There are six macrobeats in each of the three sections of the music.)

Echo after a four-movement sequence, so the copying begins after eight microbeats of music.

Use four movements in microbeat, which are copied with canon movement.

Leader:

X	X	X	X	X	X	X	X
pat	pat	snap	snap	clap	clap	push	push

Followers:

		X	X	X	X	X	X
		pat	pat	snap	snap	clap	clap

68

Hand-Jives

Grade 3 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Feeling and expressing steady beat**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequences of movement
Musical phrase

Students choreograph rhythmic sequences of movement with a partner, first without music, and then to the musical phrases.

Materials:

Record, tape, or compact-disc player
Recording of *Salty Dog Rag* (RM9)

Activity to Experience:

Students, working with partners, explore body and hand-jive movements. These movements are combinations of hand or foot sequences performed alone and with a partner. Encourage the use of learner SAY & DO. It will help in remembering the sequence.

An eight-beat sequence example might be as follows:

1. Clap your own hands.
2. Hit palms together with your partner.
3. Hit the outside of one foot with the corresponding hand while hopping on the other foot.
4. Repeat with the other foot and hand.
5. Clap your own hands again.
6. Hit right palms together.
7. Hit left palms together.
8. Make a motion in front of your body with both thumbs up.

Students listen to the music, determine the beginnings and endings of phrases, and decide on an eight-microbeat movement sequence to perform to the eight-beat phrases of the music.

Students share their hand-jive sequences with the class. They may wish to decide on the order of their presentations, to keep the music playing. The first pair performs the sequence twice, followed by the second pair, etc.

Facilitation and Reflection:

Recall the order of the movements you used. Which ones were performed without contact with your partner and which ones involved contact with your partner?

How did you determine the musical phrases? How is a musical phrase like a sentence?

Can you think of other types of movement sequences you might perform alone or with a partner? (sports movements, dance, sign language)

Extensions:

Two sets of partners might wish to work together. One pair plans the movements for the A sections of the music, and the other pair plans movements for the B sections. The form is AABB. They teach each other their movements.

Try a circle hand-jive with the whole class or with a small group. Standing in a circle, students perform the movements decided on by the class or group. Each student performs movements alone and with the students standing to either side. For example, a girl might clap her hands, then hit the hands of the students on each side of her, and then pat the knee of the students on each side of her.

Work with other music in a different form, such as *Zigeunerpolka* (RM2) in ABC form.

69

Hand-to-Hand Passing

Grade 3 and above

Key Experiences:

- **Moving with objects**
- **Feeling and expressing steady beat**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Passing
Sequencing
Steady beat

Students synchronize their timing to pass objects from one person's hand to another person's hand.

Materials:

Beanbags or other objects—one per person

Activity to Experience:

Students already have had experience with passing an object in Activity 56. They now are ready for the challenge of passing an object from hand-to-hand.

Students are seated in a circle and decide on which direction they will pass their beanbags around the circle (for example, to the right).

Everyone's left hand rests on the left leg, palm up. *The right hand becomes the passing hand.* Beginning with the right hand on top of the left, each person practices moving the right hand to the left hand of the person who is sitting on his or her right as the word "PASS" is spoken. The right hand is returned to the starting position as a word, such as "RETURN," is said.

Beanbags are held in the left hand. All simultaneously take the beanbag with the right hand and move it as practiced. Using the learner SAY & DO keeps the timing synchronized.

The process is reversed when passing the beanbag to the left.

Facilitation and Reflection:

What strategies did you use to try to stay together so all the beanbags passed at the same time?

What other ways might we use the concepts of *passing* and *sequencing?*

Extensions:

Students may suggest putting other movements into the sequence, such as tossing and catching: "PASS, HOLD, TOSS, CATCH." Now the receiving hand must move to the leg as the passing hand passes the beanbag.

Use Activity 56 to synchronize passing in a simpler way.

Students standing in a line pass balls over their head or between their legs. Every other student has a ball. Add learner SAY & DO.

In small groups, students pass balls by each person tossing his or hers to the next person. Each student has a ball.

70

Integrated Movement Copycat

Grade 3 and above

Key Experiences:

- **Moving in integrated ways**
- **Acting upon movement directions**
- **Describing movement**

Curriculum Concepts:

Visual tracking
Integrating movement
Layering movement for integration
Recalling

Students work in pairs, with each student leading integrated movements for a partner to copy. They begin with a leg pattern and layer on an arm pattern. The student who is the follower recalls the pattern.

Materials:

None

Activity to Experience:

Students explore sequenced foot patterns and then layer arm patterns onto them. Several students share their movements with the class.

Students form partners. Half of the class, with their partners, are on one side of the gym, and half are on the other side.

Partners on one side of the gym go first. The leaders begin the locomotor patterns, which the followers copy. Leaders layer on the arm pattern, and the followers copy.

When the first set of partners reaches the opposite side of the gym, the followers describe the movements to their leaders by recalling the patterns.

The partners in the other half of the class take their turns and repeat the process.

Facilitation and Reflection:

How did you decide what arm sequence to add to the leg pattern?

What helped you copy your partner's movements?

What helped you remember the leg and arm patterns so you could recall them?

What are other occasions when we see integrated movements used (sport skills, marching band)?

Extensions:

Copy integrated movements that are not layered.

Try the strategy of layering with several of the sports skills.

Leaders might wish to synchronize their movements to music.

Use integrated movement sequences. See Activity 71.

71

Integrated Sequences

Grade 3 and above

Key Experiences:

- **Moving in integrated ways**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequencing
Integrating movements

Students design two integrated movements to fit the two-part musical selection.

Materials:

Record, tape, or compact-disc player
Recording of *Sauerlaender Quadrille* (CD5)

Activity to Experience:

Students recall integrated movement sequences they have used before and explore new ones.

Students listen to the two-part music, identifying where the parts begin and end.

Students are guided to plan two different integrated movements to fit the two sections of the music. Examples they might use are jumping jacks or make-believe jump-rope (turning an imaginary rope). The A and B sections of the music have 32 beats each and are played three times.

Facilitation and Reflection:

What integrated movements have we experienced?

What are some strategies for copying someone's integrated movement sequence?

Was there anything about the music that guided you in choosing what movements to use?

How did you decide the order to use for the two movements?

Extensions:

Use objects, such as paper plates or balls, with the integrated movements.

Do all the movements in place or travel on some of them.

Keep the arm or leg movements the same and change the opposite ones. This would be a **simplify** strategy.

See Activity 66.

72 The Moving Circle

Grade 3 and above

Key Experiences:

- **Moving in locomotor ways**
- **Moving in integrated ways**
- **Acting upon movement directions**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Visual tracking
Space awareness—direction
Reversing an image

Students are standing in a circle. A student leader, inside the circle, performs locomotor movements without speaking, and the class follows the movements in the same direction (e.g., leader moves clockwise, followers move clockwise). Another leader adds arm movements to the foot patterns.

Materials:

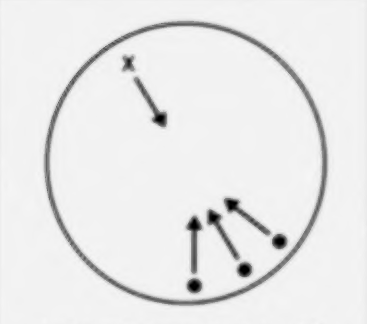
None

Activity to Experience:

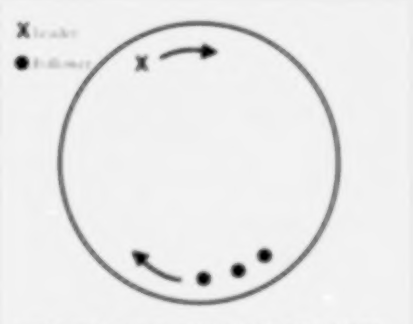
Students plan and explore movements in different directions—in and out, sideward, forward, backward in space.

One student volunteers to be the leader and begins a movement sequence consisting of IN, IN, IN, KICK; OUT, OUT, OUT, TOUCH. The class copies the movement in the same timing as the leader.

Another student uses SIDE, CLOSE in a counterclockwise direction, which all copy. This student adds a SNAP, CLAP integrated with the foot pattern.



Leader and followers: IN, IN, IN, KICK



Leader and followers: SIDE, CLOSE, SIDE, CLOSE

The activity continues with other student leaders deciding on sequences of movement for the class to process and respond to.

Facilitation and Reflection:

Eric, how did you decide which movement you would lead?

Gretchen, why did you choose that hand pattern to go with the foot pattern?

What helped you decide how to move and what direction to follow if you faced the leader from across the circle?

What strategies did you use to respond accurately to the movements when the leader demonstrated moving arms and legs at the same time?

What are some other times when you need to respond to movement directions?

Extensions:

Students follow nonlocomotor sequences.

Students perform aerobic sequences together to music.

Students use the same side of the body the leader is using (e.g., leader uses right, students use right).

See Activity 73.

73

Reverse That Image

Grade 3 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Acting upon movement directions**

Curriculum Concepts:

Image reversal
Visual tracking

Using the same side of the body as they face the leader, students copy single static movements (they copy right side with right side, left side with left side). Slow dynamic movements are substituted as the students gain experience in reversal.

Materials:

None

Activity to Experience:

Students, working in small groups, explore and discuss movements that would be easier or harder to copy accurately when facing the movement leader. (They are using the same side—right hand copies right hand; thus it looks "reversed.")

One student volunteers to face and lead each group (or the entire class) with single static movements that the followers copy not by mirroring but by *reversing* the image (i.e., using *their* right when the leader uses *his* or *her* right).

Once the followers are successful at reversing static movements, the leader can face the group and demonstrate slow dynamic movements at a tempo that permits students to use reversal in copying the movements.

Facilitation and Reflection:

What movements did your group decide would be easy to follow? Hard to follow?

What strategies did you use to reverse the movement image correctly?

How did the slow dynamic movements make the task more difficult? What do we have to do to successfully follow visually when the leader does not pause between movements?

When in class have you been expected to use the same side as the leader when the leader is facing you? (standing across the circle when the teacher was showing dance steps, fingering the recorder)

Extensions:

Integrate arms and legs for the students to mirror, or reverse. Again begin with static movements before slow dynamic and with ipsilateral (same arm and leg) before contralateral (opposite arm and leg) movements.

Use objects held in the hands.

Lead movements to music.

See also Activity 72.

74

What Beat Shall We Use?

Grade 3 and above

Key Experiences:

- 🔑 **Moving in integrated ways**
- 🔑 **Feeling and expressing steady beat**

Curriculum Concepts:

Macrobeat and microbeat
Musical form

Students, in groups of three, decide on three different ways to express beat to the A, B, and C sections of the music.

Materials:

Record, tape, or compact-disc player
Recording of *Ronee Bat Tsion* (CD4)

Activity to Experience:

The recording is played, and students explore walking to the microbeat and macrobeat. They also explore keeping macrobeat and microbeat with movements in the upper body.

Students in groups of three discuss and then explore combinations of nonlocomotor and locomotor movements, using macrobeat and microbeat. Students share with their group.

Students decide which movements to use during each of the three sections of the music. The upper and lower body can both represent the macrobeat or microbeat, or one part of the body can represent one beat while the other part represents the other beat.

Facilitation and Reflection:

How did you determine the macrobeat and microbeat of the music?

Which beat did you explore first with your feet? Why? Which beat did you explore first with your arms? Why?

Describe how you put together your arm and foot movements.

How did you decide on the combination of beats and movements that you used?

What helped you know when your part began? What musical form is used?

When might someone need to represent both the microbeat and macrobeat at the same time? (aerobics, dance)

Extensions:

Use sequenced movements to the music.

Move one area of the body at a time in either macrobeat or microbeat for each section of the music.

Choose other three-part music, such as *Hora Chadera* (CD1).

Younger children: Play the "beat detective" game in Activity 31.

75

Adding Arms to the Dance

Grade 3 and above

Key Experiences:

- ⊶ **Moving in integrated ways**
- ⊶ **Moving in sequences to a common beat**

Curriculum Concepts:

Integrating movement by learning parts
Sequencing
Musical form—verse and chorus

Students choreograph a dance and design arm sequences for each section of the dance.

Materials:

Record, tape, or compact-disc player
Recording of *Yankee Doodle* (RM2)

Activity to Experience:

Working in small groups, students choreograph a dance to the verse and chorus form of *Yankee Doodle*. They work on the foot patterns first.

Then the task for each group is to create arm sequences that can be integrated with the foot patterns.

Each group shares their integrated movement, and the class tries out the sequences.

A class choreography is constructed from the ideas presented.

Facilitation and Reflection:

How did you decide what foot patterns you would use in each of the two sections of the dance?

How did you decide what arm sequences would fit with the foot patterns?

Describe how the arms and legs fit together in the sequence you developed. ("When we stepped to the side, the arms went to the side.")

What are some tips to remember when you try to follow an integrated pattern?

How did you represent the verse-chorus form of the music?

Extensions:

Create integrated movements for other American novelty selections, such as *Limbo Rock* (RM2) or *Pata Pata* (RM6).

Learn the arm sequences for folk dances.

Experience other integrated movement in Activities 63 and 70.

76

Conducting and Walking

Grade 3 and above

Key Experiences:

- **Moving in integrated ways**
- **Feeling and expressing steady beat**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Two-beat conducting pattern
Steady beat
Rhythm
Sequence
Musical form
Musical phrase

Students integrate the two-beat conducting pattern with a variety of walking sequences.

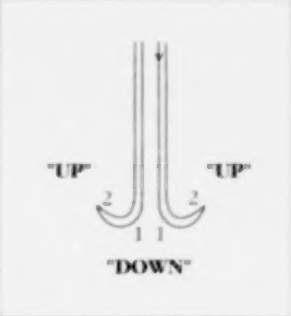
Materials:

Record, tape, or compact-disc player
Recording of *Likrat Shabat* (CD1)

Activity to Experience:

Students listen to the music and try out various two- and four-beat walking sequences, such as "WALK, REST, WALK, REST" or "WALK, WALK, WALK, REST."

Students recall the two-beat conducting pattern (shown on the right below), using both arms. They SAY & DO the pattern "DOWN, UP" and then repeat this pattern to the music.



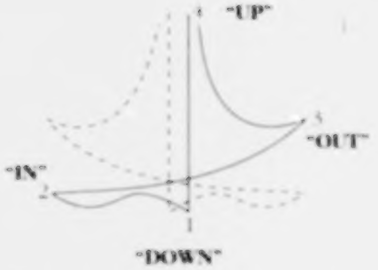
Students practice integrating the walking sequences with the *learner SAY & DO of the arms*. They try out a number of different sequences.

Students decide on the walking sequences the class will use with the recording. All perform to the music.

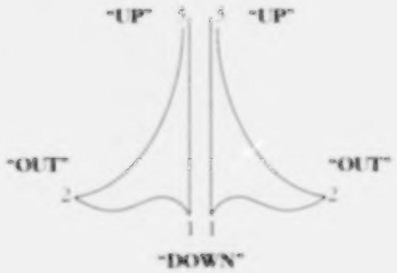
Facilitation and Reflection:

What walking sequences were the easiest (hardest) to perform to the music while conducting? Why?

Where in the pattern did you find the rests hardest to perform? Why do you



Right hand is shown with unbroken line.
Left hand is shown with broken line.
Learner SAY & DO is the same for both hands.



think it was hard to put the rests there?

What other examples of integrated movement can you think of that would be more successful if you used learner SAY & DO with the arm pattern?

Extensions:
Hold paper plates or short sticks for the conducting pattern.

Use the four-beat conducting pattern (shown at the upper left) with or without music. The learner SAY & DO is "DOWN, IN, OUT, UP."

Try a three-beat conducting pattern (shown at the left) integrated with foot patterns. The learner SAY & DO is "DOWN, OUT, UP."

77 Grand March

Grade 3 and above

Key Experiences:

- **Moving in locomotor ways**
- **Feeling and expressing steady beat**

Curriculum Concepts:

Microbeat
Pathways

Students work together to decide on routes they might travel around the room as they march in single file, march with a partner, or march in lines of four or eight persons.

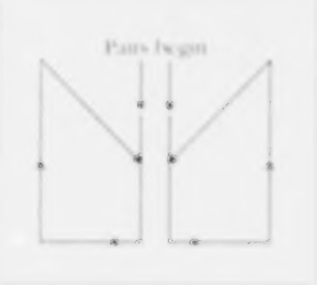
Materials:

Record, tape, or compact-disc player
Recording of *Jessie Polka* (RM9) or other instrumental selections from the *Rhythmically Moving* or *Changing Directions* recordings or the *Rhythmically Walking* cassette tape

Activity to Experience:

Students explore various pathways that all can use as they march in the gym or around the classroom. They decide on a single-file route to travel.

In the gym, students explore pathways and formations that can be used in traveling single file, with a partner, or in fours or eights. They plan their route. An example is the following section of a grand march: moving down the center by twos, then separating into two single-file lines at the end of the gym, with each line going to the corner and then turning and going up the outside and then marching diagonally across the room to meet again as twos in the center of the gym, as shown at the left below.



The twos could also alternate in turning opposite directions at the end of the room, coming around and joining to go back down the center of the gym by fours. A spiral can be wound and then unwound.

Pairs of students may decide to face each other and slide sideward down the center, or they may skip or gallop side-by-side down the center. The ideas to be generated are unlimited.

Facilitation and Reflection:

What are some of the pathways you took in the gym (classroom)?

What helped you keep the microbeat while you were traveling in these various pathways?

When might you see this type of marching outside of school?

Extensions:

Trains of approximately two to four students may move about the space. See Activity 57.

Students may make a map of their route.

Make up a sequence of locomotor movements for a grand march using AABB music. The sequence could be as follows: *A section:* March eight steps, jump four times, and hop four times; then repeat the A section. *B section:* Skip eight times, tiptoe four steps, and accent feet (heavy steps) four times; then repeat the B section.

Use the sequence above for canon movement. Half of the class begins. The other half of the class begins the A section when the first group begins the B section.

78

Identifying Angles

Grade 3 and above

Key Experiences:

- 🔑 **Moving in nonlocomotor ways**
- 🔑 **Acting upon movement directions**

Curriculum Concepts:

Acute, obtuse, and right angles

Students use nonlocomotor movement to explore right angles, acute angles, and obtuse angles. Two students in each group of three students create statue shapes that are joined. The third person identifies and labels all the angles found in the statue shape.

Materials:

None

Activity to Experience:

The class divides into groups with three students in each group. Groups review acute, obtuse, and right angles and then explore the angles they can make with their body.

Two students in each group form statue shapes that are attached to each other in some way. The third student in the group finds and identifies the angles created by the joint statue.

The activity continues, with the other two students taking a turn at identifying the angles created by the statues.

Facilitation and Reflection:

How would you describe each of the angles—right, acute, and obtuse?

In the statue shapes, where did you find right angles? Acute angles? Obtuse angles?

As you look about the room, where do you find these angles?

Extensions:

A problem-solving task could be given to create as many right angles as possible in one- or two-person statues.

The third person may wish to guide the formation of the two-person statue, one angle at a time, identifying the angle formed with each move.

The student leader may wish to draw an angle on a card and have the class respond with locomotor movement to travel a pathway that forms that angle.

A volunteer may draw one card from three prepared cards showing the three kinds of angles. The volunteer identifies the kind of angle and demonstrates a way to use movement to represent it, and all copy.

Use yarn to represent the angles and travel the yarn shape using locomotor movement.

79

Machines That Work

Grade 3 and above

Key Experiences:

- **Moving in nonlocomotor ways**
- **Moving in locomotor ways**
- **Expressing creativity in movement**

Curriculum Concepts:

Representation
Vocal exploration

Students work in groups of six to eight. Each group selects a machine or form of transportation and constructs a working representation of that machine. Representative vocal sounds are added to the movement. Each group shares, and the class guesses what is being represented.

Materials:

None

Activity to Experience:

Students form groups of six to eight. Groups brainstorm to list machines or forms of transportation they might represent with movement and sound. When each group has decided what to represent, they tell the teacher what they have chosen, so two groups don't select the same machine.

Students plan and carry out how they will represent their machine with nonlocomotor or locomotor movements and what vocal sounds will accompany the movements.

Groups volunteer to share their representations with the class, so the class can guess what is being represented.

Facilitation and Reflection:

What did you consider first as you selected the machine or form of transportation you would represent?

How did you decide what movements to use? What vocal sounds to use?

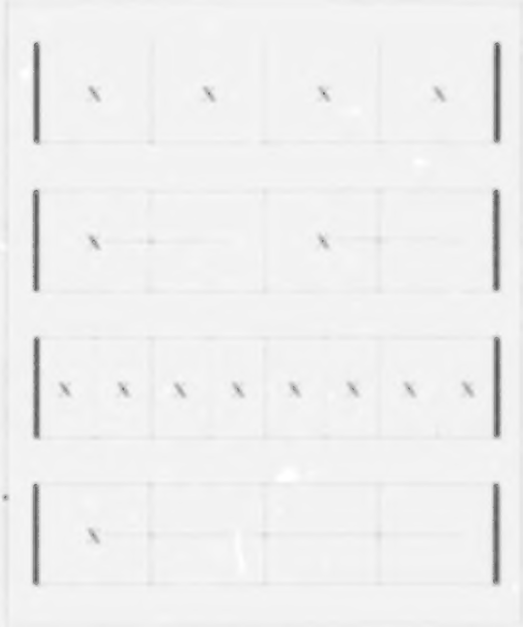
What else could you represent with movement and sound?

Extensions:

Kindergarten children might represent the different forms of transportation they know about.

Older students might demonstrate science concepts: levers, or molecules, or sound waves.

Represent the machine with steady beat movements using the following durations within the same machine.


X X X X
X X
X X X X X X X X
X

80

Shaping Sequences

Grade 3 and above

Key Experiences:

- **Moving in locomotor ways**
- **Moving in sequences to a common beat**

Curriculum Concepts:

Sequencing
Representation

Students choose one of four geometric shapes. To represent the chosen shape, they select two different locomotor movements or a sequence that repeats the same locomotor movement twice. Each student joins another student with a different shape, and they join their movements into a four-movement sequence. Each student finds three other students with the three other shapes, and they construct an eight-movement sequence.

Materials:

Sets of four geometric-shape cutouts (one cutout for each student)

Activity to Experience:

Each student selects one of the four geometric shapes and represents that shape with a sequence of two different locomotor movements or the same locomotor movement performed twice in two different positions. All perform each sequence with learner SAY & DO. Examples might be the sequence "JUMP, HOP," or a sequence "SIDE, CLOSE," or "APART, TOGETHER" with two jumps.

Each student takes a partner who has a different shape. They teach each other their sequences using learner SAY & DO and then put the two sequences together into a four-movement sequence.

Each student finds three other students with three other shapes. After teaching one another their sequences, they determine the order of the four sequences, placing the shapes in that order. They may change a sequence if they determine it to be necessary to create an effective eight-movement sequence.

Facilitation and Reflection:

Describe the sequence you created to represent your shape.

When you joined the second person, how did you decide whose sequence should come first?

How did you decide on the order of sequences for the eight-movement sequence?

If you changed any of the sequences, why did you feel you needed to make the change?

Are there occasions when people create long sequences of any type of movement? (writing is a movement sequence, sports and dance skills are sequences)

Extensions:

With younger learners, begin with a single movement (nonlocomotor or locomotor) representing a shape. See Activity 24.

Select a dance step to represent a shape, such as cherkessiya, grapevine, schottische, two-step, etc., and sequence those dance steps together.

Substitute colors, sounds of instruments, or other objects to represent with movement.

Chapter 8

Assessment and the Key Experience Checklist

A child is the only known substance from which
a responsible adult can be made.
Author unknown

The approach of the "Education Through Movement" program, which incorporates student-choice and all the other components of active learning, includes the belief that assessment is most meaningful when it occurs in "real time" and is based on observable outcomes. Thus, observation and assessment by the teacher should be part of classroom movement experiences.

Students engaged in the movement key experiences provide teachers with an ongoing opportunity for assessment. The observable outcomes of the key experiences furnish immediate information about each student's level of motor performance and development. We can evaluate students' *level of attending* as they act upon movement directions presented by others both verbally and visually. We can assess *thinking skills* and *language development* as students describe, plan, and recall movement experiences and use learner SAY & DO. We can assess students' *comfort with movement* and *awareness of body, language, space,* and *time*. We can determine their *level of creativity* as we observe them exploring movements. Finally, we can evaluate their *ability to independently keep steady beat* and to *coordinate sequences of movement* in beat.

In light of what we have just said about the assessment opportunities afforded by the key experiences, formal testing of students is usually not necessary. As teachers create opportunities for students to work independently and in cooperative learning groups, they remove themselves from a directive role and enable students to work with concepts in their own way. This allows the teacher to do informal, individual observation in place of formal testing. For those times when formal testing is appropriate, two formal tests are included in Appendix A and Appendix B of this book. One test determines students' independent proficiency with steady beat. The other screens for their level of beat coordination and in doing so predicts their beat competence. Assessment of steady beat independence and beat coordination provides useful information to teachers, because these are two important areas that underlie many movement abilities. (See Chapter 6 for a full discussion of steady beat and beat coordination.)

For your assessment of students by informal observation, a "Key Experience Checklist" follows this introduction. In reviewing the checklist, you will see that the key experiences vary with regard to what is to be observed. In some cases, the observation involves assessing the student's proficiency at steps of increasing difficulty; in other cases the observation involves assessing the student's comfort with and awareness of fundamental motor abilities as they emerge. Experiences introduced in preschool and kindergarten spiral back and expand in later grades. As the student matures and gains strength, balance, and coordination, the observation involves assessing increasingly complex ways of demonstrating proficiency.

A checklist such as this can be used for each child. The items can be noted, one by one, as a range of experiences are presented in the classroom, in music, and in physical education. We suggest a simple scoring procedure for each item of the checklist:

1 = awareness of the skill or concept
2 = partial competence with the skill or concept
3 = ownership of the skill or concept

The scores recorded on this checklist will constitute an observation record that can be shared with the students themselves, with parents, and with administrators, as desired.

Key Experience Checklist

I. Engaging the Learner

🔑 A. Acting upon movement directions

Verbal directions

☐ 1. Student follows spoken directions given one at a time. ("Put your hands on your ears.")

☐ 2. Student follows two spoken directions given successively. ("Put your hands on your shoulders and then put your hands on your knees." or "Put one hand on your shoulder and one hand on your knee.")

☐ 3. Student follows directions given for a specific side of the body. ("Raise your right arm over your head.") *Note:* 2nd-grade assessment

Visual demonstration

☐ 4. Student follows one single static symmetrical movement. (Leader places both hands at the waist.)

☐ 5. Student follows one single static asymmetrical movement. (Leader places one hand on the head and the other on the shoulder at the same time.)

☐ 6. Student responds to two movements *after* they are both shown. (Leader straightens arms in front and then bends elbows.) *Note:* 1st-grade assessment

☐ 7. Student mirrors leader's movement. (Leader, facing group, moves right arm to the side, and student moves left arm.) *Note:* 2nd-grade assessment

☐ 8. Student uses same side that leader facing the group is using (reversal). (Leader raises right arm and student raises right arm.) Note: 3rd-grade assessment

Hands-on guidance

☐ 9. Student identifies a single movement. (Leader places both hands of student on the chin.)

☐ 10. Student identifies two successive movements after they are completed. (Leader moves both hands of student to the waist and then to the shoulders.)

Tracking dynamic (continuous) movement

☐ 11. Student responds to slow dynamic movements.

☐ 12. Student responds by mirroring dynamic movement.
Note: 2nd-grade assessment

☐ 13. Student responds by reversing dynamic movement.
Note: 3rd-grade assessment

B. Describing movement

Talking about movement while doing it

☐ 1. Student describes movement while performing it.

Planning movement

☐ 2. Student describes the movement to be performed before doing it.

Recalling movement

☐ 3. Student describes the movement after it is completed without simultaneously performing the movement.

Learner SAY & DO

☐ 4. Student unites movement to words spoken. Movement and action occur simultaneously.

II. Enabling the Learner

A. Moving in nonlocomotor ways

☐ 1. Student exhibits confidence while performing nonlocomotor movement.

2. Student demonstrates the basic nonlocomotor movements.
   - ☐ Bend ☐ Straighten ☐ Twist ☐ Turn ☐ Swing ☐ Rock
   - ☐ Curl ☐ Stretch ☐ Push ☐ Pull ☐ Rise ☐ Fall

☐ 3. Student identifies the basic nonlocomotor movements with their correct language.

4. Student demonstrates space awareness extensions.
   - ☐ Direction ☐ Level ☐ Pathway
   - ☐ Size ☐ Intensity ☐ Flow ☐ Shape

5. Student demonstrates time awareness extensions.
   - ☐ Start ☐ Stop ☐ Fast ☐ Slow
   - ☐ Even ☐ Uneven ☐ Getting faster ☐ Getting slower

B. Moving in locomotor ways

☐ 1. Student exhibits confidence while performing locomotor movement.

2. Student demonstrates the basic locomotor movements.

☐ Walk
☐ Hop
☐ Run
☐ Gallop
☐ Leap
☐ Slide
☐ Jump
☐ Skip

☐ 3. Student identifies the basic locomotor movements with their correct language.

4. Student demonstrates space awareness extensions.

☐ Direction
☐ Size
☐ Level
☐ Intensity
☐ Pathway
☐ Flow
☐ Shape

5. Student demonstrates time awareness extensions.

☐ Start
☐ Even
☐ Stop
☐ Uneven
☐ Fast
☐ Getting faster
☐ Slow
☐ Getting slower

🔑 C. Moving in integrated ways (2nd grade and older)

☐ 1. Student exhibits confidence while performing integrated movement.

☐ 2. Student integrates two nonlocomotor movements.

☐ 3. Student integrates two single movements. (shaking action with the hands while jumping)

☐ 4. Student integrates one sequenced movement with one single movement. (bending and straightening arms while jumping)

☐ 5. Student integrates two sequenced movements performed with both sides of the body. (jumping jacks)

☐ 6. Student integrates two sequenced movements performed with the same side of the body. (Right arm straightens, bends while right leg does heel, toe.)

☐ 7. Student integrates two sequenced movements performed with opposite sides of the body. (Right arm straightens and bends while left leg does up, touch.)

☐ 8. Student integrates alternating sequenced movements on *same* side. (Arms do out, in while legs do heel, step.)

☐ 9. Student integrates alternating sequenced movements on *opposite* sides. (Opposite arm and leg alternate a sequence.)

🔑 D. Moving with objects

☐ 1. Student exhibits confidence while moving with a range of objects.

☐ 2. Student throws a ball and steps forward with the opposite foot.

☐ 3. Student successfully kicks a stationary ball.

☐ 4. Student successfully kicks a moving ball.

5. Student dribbles a ball.
☐ With the feet ☐ With the hands

☐ 6. Student successfully strikes a stationary ball.

☐ 7. Student successfully strikes a pitched ball.

☐ 8. Student catches a ball tossed to self.

☐ 9. Student catches a ball tossed by another person.

☐ 10. Student fingers a melodic instrument.

☐ 11. Student demonstrates coordination with a range of objects.

III. Extending the Learner

🔑 A. Expressing creativity with movement

☐ 1. Student makes movement choices and shares with the class.

☐ 2. Student demonstrates problem-solving ability.

☐ 3. Student uses representation.

☐ 4. Student expresses creativity with hand-held objects.

☐ 5. Student demonstrates ability to choreograph sequences.
Note: 2nd-grade assessment

☐ 6. Student expresses higher level creativity with movement.

🔑 B. Feeling and expressing steady beat

☐ 1. Student initiates a steady-beat movement.

☐ 2. Student repeatedly speaks a single word in a steady-beat tempo.

☐ 3. Student follows a steady-beat movement initiated by someone else visually.

☐ 4. Student follows a steady-beat movement initiated by someone else verbally.

☐ 5. Student keeps macrobeat to a rhyme, song, or recorded musical selection in nonlocomotor movement.

☐ 6. Student keeps microbeat to a rhyme, song, or recorded musical selection in locomotor movement.

☐ 7. Student keeps microbeat to a rhyme, song, or recorded musical selection in nonlocomotor movement. *Note:* 1st-grade assessment

☐ 8. Student keeps macrobeat to a rhyme, song, or recorded musical selection in locomotor movement. *Note:* 2nd-grade assessment

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- ☐ 9. Student integrates macrobeat and microbeat to a rhyme, song, or recorded musical selection kept with movement of two different areas of the body. *Note:* 3rd-grade assessment
- ☐ 10. Student demonstrates precise rhythm layered on steady beat. *Note:* 3rd-grade assessment

🔑 C. Moving in sequences to a common beat

- ☐ 1. Student demonstrates a single movement in steady beat with two corresponding body parts.
- ☐ 2. Student demonstrates an alternating single movement in steady beat.
- ☐ 3. Student demonstrates a two-movement sequence in steady beat.
- ☐ 4. Student demonstrates a four-movement sequence in steady beat.
- ☐ 5. Student demonstrates an alternating two-movement sequence. *Note:* 2nd-grade assessment
- ☐ 6. Student demonstrates an alternating four-movement sequence. *Note:* 3rd-grade assessment
- ☐ 7. Student demonstrates sequences in a range of experiences. *Note:* 3rd-grade assessment

Appendixes

Appendix A

Beat Competence Analysis Test

The **Beat Competence Analysis Test** is designed to assess an individual student's ability to perform movement to the underlying steady beat of recorded music. It may be used as a pretest or a posttest. The test may be administered to children as young as kindergarten age. To assure accurate scores, the testers need to possess basic timing and be trained to a level of acceptable interrater reliability. One tester can be used if this level is determined.

In the first 6 steps of the test, the student progresses through tasks using nonlocomotor movement while seated to tasks using locomotor movement (1) in personal space and (2) in general space (walking). (See p. 87 for definitions of *nonlocomotor, locomotor, personal space*, and *general space*.) A single musical selection is used for these first 6 steps. For Steps 7–12, the student repeats this same progression, using a second musical selection with a slower tempo. Two different tempos are used for the test because the student's natural tempo might match one of the tempos chosen.

To Administer the Test

Administering the test requires a tape recorder and cassette tapes (or compact discs or records) of two instrumental musical selections, each having a strong underlying beat. A number of selections on the *Rhythmically Moving* recordings are appropriate. One musical selection should have a metronome setting of approximately 130 microbeats per minute, and the other selection should have a metronome setting of approximately 124 microbeats per minute. Suggestions for the faster tempo are *Te Ve Orez* (RM1), *Blackberry Quadrille* (RM2), or *Irish Washerwoman* (RM3). Suggestions for the slower tempo are *Sellenger's Round* (RM7), *Apat Apat* (RM4), or *Doudlebska Polka* (RM2).

While being tested, the student should be in a location away from other people and distractions or interruptions of any kind. Both the student and the tester should be seated at the beginning of the test. The tester should put the student at ease with friendly, relaxed conversation.

To be certain the student understands the movements to be requested during the test, the student and tester should play a short, visual follow-the-leader game demonstrating two types of patting movements—two hands on the knees and alternating hands on the knees; walking in place and walking forward and backward should also be demonstrated. These are the movements the student will be expected to do when the music is added. During the visual follow-the-leader game, avoid using the tempo of either testing selection.

The steps of the test are as follows:

Step 1—Using the musical selection with the faster tempo, ask the student to pat his or her knees with both hands at the same time to the beat of the music. ("Pat your knees to the steady beat of the music.") *Note:* The student may choose to demonstrate either macrobeat or microbeat in this and other steps of the test. However, these terms are not used by the tester. **Avoid providing any visual or auditory assistance to the student while the music is playing.**

Step 2—Begin the same musical selection again, and ask the student to pat his or her knees to the beat, using an alternate hand for each pat (right hand on right knee, then left hand on left knee). The student may begin with either hand. ("Pat your knees to the steady beat of the music, alternating your hands.")

Step 3—Using the same musical selection, ask the student to "walk" the beat while seated ("The music will begin again. Please stay seated and 'walk' the steady beat.")

Step 4—Continuing with the same musical selection, ask the student to stand and "walk" the beat while remaining in place. ("Please stand and 'walk' the steady beat while staying in place.")

Step 5—Continuing with the same musical selection, ask the student to walk the steady beat in a forward direction. ("Now please move forward walking the steady beat.")

Step 6—Continuing with the same musical selection, ask the student to walk the steady beat in a backward direction. ("Now please go backward walking the steady beat.")

Steps 7–12—Using the musical selection with the slower tempo, repeat Steps 1–6.

Note: If time is limited, assess beat competence by using only Steps 1, 3, 4, and 5 with each musical selection.

To Evaluate the Results

Each step of the test is scored on a 3-point scale. On each step, a score of "2" indicates that the student can accurately match movement to the underlying steady beat for at least eight beats. A score of "1" indicates that the student accurately demonstrates the beat for a short time but is not able to keep it for as long as eight beats. A score of "0" indicates that the student is not able to accurately feel and demonstrate the beat even for a short time. A student who scores a "2" throughout the test, with both musical selections, may be said to possess **basic timing,** the observable outcome of the key experience *feeling and expressing steady beat.* A student who scores a "2" on any single step of the test, with both musical selections, has **beat competence** at that level of difficulty.

Test Summary

Step 1	Pat beat, both hands
Step 2	Pat beat, alternating hands
Step 3	"Walk" beat in place while seated
Step 4	"Walk" beat standing in place
Step 5	Walk beat forward
Step 6	Walk beat backward

Appendix B

Beat Coordination Screening Test

The **Beat Coordination Screening Test** is for use with students in second grade and above. It is a visual follow-the-leader test, without music, that is designed to assess a student's level of **beat coordination** and to predict a student's basic **locomotor beat competence** (ability to feel, express, and keep steady beat while walking). It may be used as a pretest or a posttest.

The test, which requires no equipment or materials, may be administered to an individual student, to a small group of students, or to an entire class of students at one time. Please note, however, that if an entire class is tested at one time, it may be difficult to detect those students who are at different levels of beat coordination and beat competence. Also, if testing a group of students, be sure that each individual has sufficient room to stretch both arms out sideward. If testing two or more small groups, one at a time, you will need to be sure that those students waiting to be tested cannot practice the movements they see you using with an earlier group. In this situation, we suggest that you change the movements you use with each group.

The test consists of five steps in which a tester demonstrates nonlocomotor movement requiring increasingly higher levels of beat coordination. At each step, the students watch and then join in with the tester's movement, *exactly copying* the movement and *synchronizing* their movement to the beat set by the tester. The tester progresses from one step to the next, changing the type of movement, *without stopping to miss a beat*. Each time, a verbal cue is given to let students know that the movement will change. Both the tester and the students may be either seated or standing for the test, and as mentioned earlier, no music is used.

To Administer the Test

Stand or sit facing the students to be tested. Using a medium tempo, perform the following movements, asking the students to join in. ("I will begin a movement and please join me as soon as you can. I will tell you when I am going to change the movement.")

Step 1—Repeatedly pat your thighs with your two hands in a steady beat. Repeat this *single movement* for at least eight pats, or until you see that every student is joining you in doing this movement to the steady beat. When ready to change movements, give students a cue. ("I am going to change the movement.")

Step 2—Pat your thighs with alternate hands (right hand pats right thigh, left hand pats left thigh), but do not specify "right" or "left" to the students. Patting once with each beat, repeat this *single alternating movement* for at least eight pats. When students have all joined in and are comfortable with Step 2 movement, announce that you are going to change the movement. Without stopping or skipping a beat, go on to Step 3 movement.

Step 3—Pat once on your thighs with both hands (first beat), then clap both hands together (second beat). Repeat this *two-beat sequence* at least eight times. When most of the students have tried to join the Step 3 movement, announce that you are going to change the movement. Without stopping or skipping a beat, go on to Step 4 movement.

Step 4—Snap fingers of both hands once with arms stretched out sideward (first beat), then clap your hands together (second beat). Repeat this *two-beat sequence* at least eight times or until most of the students have tried to join in. When students seem comfortable with Step 4 movement, announce that you are going to change the movement. Without stopping or skipping a beat, go on to Step 5 movement.

Step 5—Pat thighs once (first beat), clap once (second beat), snap fingers with arms outstretched (third beat), clap once (fourth beat). Repeat this *four-beat sequence* at least eight times or until most students have tried to join in.

Note: By Step 3 of the test, some students may begin to have difficulty joining in. They may stop trying the movements altogether, or they may appear confused. Go on with the test, so evaluation of the others can take place. Steps 1–5 may be changed to use other movements. For example, touch knees, touch shoulders for Step 3; then straighten arms in front, bend arms for Step 4; combine Steps 3 and 4 for Step 5.

To Evaluate the Test Results

Students who cannot for any step of the test accurately join in after two or three repetitions of the movement usually have a low level of beat coordination. Students who have difficulty as early as Step 3 and who cannot do Step 5 movement in synchronization with the tester usually will have difficulty walking to the steady beat of a musical selection. Students who succeed in synchronizing their Step 5 movements with the tester after *several* repetitions may be able to walk to the steady beat of music but will often lack sufficient coordination to succeed with organized movement and dance sequences. Students who are successful with Step 5 movement on the first or second repetition can be expected to walk to the steady beat of music, as long as they independently feel the beat of the music; they will also be able to perform movement and dance sequences.

This screening test has been given to hundreds of persons ranging from age 7 to age 70. It tests beat coordination and predicts with 95 percent accuracy a person's ability to walk to the steady beat of a musical selection.

Test Summary

Step 1	"PAT" thighs with both hands
Step 2	"ALTERNATE PAT" on thighs
Step 3	"PAT, CLAP"
Step 4	"SNAP" (both hands), "CLAP"
Step 5	"PAT, CLAP, SNAP, CLAP"

Appendix C

Beat Competence and Academic Performance

Research in the area of movement and music confirms that arts education contributes to the overall quality of life, and specifically to children's academic and social development. For example, the High/Scope Rhythmic Skills Study (Weikart, Schweinhart, & Larner, 1987) with 358 children in Michigan found that their beat-keeping ability, measured with the Rhythmic Competency Analysis Test (RCAT) was positively and significantly correlated with California Achievement Test total scores at the end of first and second grade ($r = .30$ and $.24$, $p < .05$). (The RCAT, later called the Beat Competence Analysis Test, is presented in Appendix A, p. 379.) Kiger (1994) also found that RCAT scores were positively associated with gross-motor skills ($r = .22$, $p < .01$), and the reading group level ($r = .26$, $p < .01$) of 128 children in grades 1, 3, and 5 in Ohio and Georgia. A similar investigation (Mitchell, 1994) with 138 first-graders in Florida found that students who were performing at grade level in language arts and math scored significantly higher on the RCAT than those who were performing below grade level ($F = 21.71$, $p < .001$). And a pilot study with at-risk 4-year-olds in Michigan (Peterlin, 1991) indicated that when beat competence was enhanced, children increased their inner control. They spent more time on task and improved their self-management and motor control during large-group activities.

The Decline in Beat Competence

Given the potential benefits of beat competence for intellectual and social development, it is alarming to discover that movement and music skills appear to be declining in the national student population. Although developmental research has shown that children are capable of beat competence shortly after the preschool years (Hargreaves, 1986), evidence is accumulating that many elementary students have trouble in this area. A study by Weikart (1982) with 104 children in grades 1–3 found that walking to music, one of the simplest beat-keeping tasks commonly used in the early elementary grades, was possible for 25 percent of the children to perform. Mitchell's 1994 report on a study done 10 years later with 138 first-graders found that only 15 percent of all students were beat competent, i.e., scored the maximum number of points possible on the RCAT.

Reversing the Decline in Beat Competence

Fortunately, there is empirical evidence that the decline in beat competence can be reversed. A demonstration study by Weikart, Schweinhart, and Larner (1987) documented the effectiveness of training teachers in the "Education Through Movement" approach and thereby increasing the beat competence of young children. Using random assignment, the researchers compared a group of 189 first-graders whose music teacher was trained to implement the "Education Through Movement" program with 169 comparison children who received their regular movement and music program. The results showed that although the groups started at the same level of beat-keeping skills, the "Education Through Movement" group scored significantly higher ($p < .005$) on the RCAT than the comparison group did at the end of the program. A pilot study by Peterlin (1991) also indicated that teachers trained in the "Education Through Movement" approach could enhance the beat competence of 4-year-old children at risk for social and academic problems.

Carlton and Weikart (1994) conclude that children's movement and music aptitudes are established at a very young age and that elementary classroom teachers have an opportunity to play a vital role in the future of arts education in these domains. The quantitative research summarized here bears out their statement that a carefully designed movement program implemented by well-trained teachers can enhance not only the beat-keeping skills of young children but their academic, social, and music competence as well.

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Appendix D

Glossary

active learning approach The approach of the "Education Through Movement: Building the Foundation" program in which the teacher both introduces ideas and recognizes opportunities to support and extend ideas initiated by students.

alternating movement Movement in which two corresponding body parts take turns. For example, the two feet take turns in walking.

anchored Having some part of the body in fixed contact with the surface (floor or ground) while other body parts move.

anchor word (pitch) A single word spoken or sung by the leader four or eight times to bring the group to beat synchronization before saying a rhyme or singing a song. Singing this word on the beginning pitch of the song *(anchor pitch)* enables the group to begin with a common beat and pitch.

asymmetrical movement Movement in which two corresponding or two different body parts move at the same time in different ways.

aural The modality in which a learner listens, processes, and responds to spoken or sung directions.

basic timing Ability to independently feel, express, and keep the underlying steady beat of a rhyme, song, or recorded/live musical selection with nonlocomotor and locomotor movement. This ability is the observable outcome of the key experience *feeling and expressing steady beat*.

beat (steady beat) The consistent, repetitive pulse that lies within every rhyme, song, or musical selection. The pulse has even durations and occurs at equal intervals.

beat awareness The realization that every rhyme, song, or instrumental musical selection (live or recorded) has an underlying steady beat and that this concept of beat includes both macrobeat and microbeat.

beat competence Demonstrated proficiency expressing and keeping microbeat and/or macrobeat with nonlocomotor or locomotor movement while moving, singing, or playing instruments.

beat coordination Ability to perform sequences of movement to one's own steady beat and with others. This ability is the observable outcome of the key experience *moving in sequences to a common beat*.

bilateral movement Movement of corresponding body parts, such as the two hands or the two feet.

body awareness Understanding how each body part can move and what movement relationships exist among body parts.

choreography The art of creating and arranging sequences of movements to music.

cognitive Having to do with the process of mental learning or understanding.

concept An abstract idea fundamental to a specific body of knowledge.

contralateral movement Movement performed simultaneously by two different body parts on opposite sides of the body (for example, the right arm moving at the same time as the left leg).

creative movement Taking movement that is familiar and changing it in some way.

curl A nonlocomotor movement that involves motion at joints where there are short bones on either side of the joint, such as the spine, fingers, toes.

direction An extension of movement that refers to "where" movement is going (upward/downward, forward/backward, sideward, around, clockwise/counterclockwise).

duple meter Meter based on groupings of two microbeats or multiples of two.

dynamic movement Movement that continues without pausing until the designated stopping point.

even timing Repeated movement having equal time intervals between the movements.

facilitate The third component of the Teaching Model of the "Education Through Movement" program, which is the component that deals with engaging learners through action, thought, and language in many and varied ways, to enable them to construct their own knowledge.

fermata A musical symbol over a note or chord that indicates it is held for a longer duration.

fine-motor movement Movements and coordinations of movements performed with small-muscle groups.

flow An extension of movement that concerns whether it is smooth or choppy.

form The organization of a musical selection according to its sections of melodic repetition, variation, contrast, or development. For example, a selection can be in AB form, in AABB form, and so on.

Four-Step Language Process The process whereby a learner connects movement with language (conscious thought). The steps of the process are SAY, SAY & DO, WHISPER & DO, and THINK & DO.

gallop A locomotor movement that is a combination of two transfers of weight from one foot to the other foot. The foot that is leading reaches, and the trailing foot comes up to meet it in uneven timing.

general space All the available space within some large perimeter, such as the walls of a room or the boundaries of a playing field or court—all the space that a person can reach using locomotor movement.

gross-motor movement Movement (locomotor or nonlocomotor) of large-muscle groups.

hands-on-guidance Interacting with the learner by using the tactile/kinesthetic mode.

hop A locomotor movement that transfers weight from one foot to the same foot.

inhibited movement One side of the body holding still while the other side performs single or sequenced movement.

integrated movement Movement in which two different areas of the body are united in purposeful movement.

intensity An extension of movement that concerns how much force or tension is applied.

ipsilateral movement Movement of two different body parts on the same side of the body (for example, movement of the right arm and right leg).

jump A locomotor movement that transfers weight from one or two feet to two feet.

key experiences Essential experiences that support the development of specific observable processes or outcomes that are relevant to a learner's understanding of a particular concept.

kinesthetic Pertaining to the processing and awareness of body movements; kinesthetic intelligence involves understanding what the body can do.

language awareness In the study of movement, an understanding of the labels associated with parts and actions of the body.

leap A locomotor movement that is a stylistic variation of running, involving greater force that adds height or distance.

learner SAY & DO The process whereby a learner chants a word and simultaneously performs a related movement, creating a cognitive-motor link.

level An extension of movement that shows whether the movement is in a low, middle, or high plane.

locomotor movement Nonanchored movement consisting of transfers of weight (foot patterns) in personal or general space.

macrobeat The beat that organizes groups of two or three microbeats. It coincides with the first beat of each group of two or three microbeats.

meter The grouping of beats in a pattern of two (ONE, two, ONE, two) or three (ONE, two, three, ONE, two, three) or combinations of twos and threes, which gives internal organization, consistency, and flow to music.

microbeat The regular walking beat; each beat of a group of two or three beats.

mirroring Copying a leader's movement, while facing the leader, by creating a mirror image of the leader's movement (that is, follower's right arm copies leader's left arm).

nonanchored Having no part of the body in fixed contact with the floor, as in weight transfers.

nonlocomotor movement Anchored movement performed in one's own space (personal space) without complete transfers of weight.

note A musical symbol that denotes both pitch and duration.

one side . . . other side Repeated movements of one arm, leg, or hand, without moving the opposite arm, leg, or hand. This is followed by doing the same repeated movements with the corresponding body part on the opposite side.

pathway An on-the-floor or in-the-air pattern (straight, curved, zigzag) that the body creates with locomotor or nonlocomotor movement.

personal space All the space that any part of the body can reach while the body is anchored (as, for example, when performing nonlocomotor movement).

phrase A musical (or spoken) thought that is part of a melody (or of a whole sentence). One often stops to take a breath at the end of a phrase.

pull A nonlocomotor movement that applies a steady force toward the body.

push A nonlocomotor movement that applies steady force away from the body.

representation Movement that reenacts familiar actions or happenings or imitates various living things and creatures. It involves moving "like" or "as if."

reversal (right/left) Copying a leader's movement, while facing the leader, by moving the same side of the body the leader is using, thus *not* creating a mirror image. For example, in reversal, the follower's right arm copies the leader's right arm.

rhythm The action of note values and words within and among the beats of a rhyme, song, or musical selection.

rock A nonlocomotor movement that maintains the body in anchored position but partially shifts weight side-to-side or front-to-back.

run A locomotor movement that transfers weight from one foot to the other foot. Both feet are off the floor or ground in the transfer of weight.

SAY The first step of the Four-Step Language Process, in which thought is represented by repeatedly speaking a single word that later will be matched with action.

SAY & DO See **learner SAY & DO.**

separate The first component of the Teaching Model of the "Education Through Movement" program, which is the component that deals with using only one mode of presentation—visual demonstration, spoken directions, or hands-on guidance—when presenting information to learners.

sequenced alternating movement Sequenced movement performed with one side of the body and then repeated with the other side of the body.

sequenced movement Two or more purposeful movements (such as bending and straightening) joined together; once it is completed, the sequence can repeat itself. A sequence can also be continuous and nonrepetitive; the sequence of movements involved in serving a tennis ball is an example.

shape The appearance of a movement—whether it looks symmetrical, narrow, wide, curved, and so on.

simplify The second component of the Teaching Model of the "Education Through Movement" program, which is the component that deals with beginning with what is manageable for the learner. This may mean breaking a task into subtasks involving precursor skills.

single movement One movement that is held or repeated (for example, patting knees, stomping one foot or stepping).

size An extension of movement that refers to whether it is large, medium, or small.

skip A locomotor movement that is the combination of two different transfers of weight—one foot to the other foot (step) and one foot to the same foot (hop). Skipping has uneven timing.

slide A locomotor movement that is the combination of two transfers of weight: The leading foot reaches sideward, and the trailing foot then comes over to meet it. The slide, which may be thought of as a sideward gallop, has uneven timing.

space awareness In the study of movement, understanding of the spatial relationships and extensions dealing with the "where" and "how" of movement. Space awareness denotes realization of the body's relationship to personal and general space.

static movement Movement that stops or pauses before a new movement is presented.

stretch A nonlocomotor movement that involves exerting force to extend the trunk, arm, or leg beyond a straight position; hyperextension.

swing A nonlocomotor movement that involves a two-way motion either forward and backward, or sideward—usually a motion of the arms or legs.

symmetrical movement Two sides of the body doing the same movement at the same time.

Teaching Model The presentation method used in the "Education Through Movement" program, which is a method consisting of three components—**separate, simplify,** and **facilitate.** The Teaching Model is fundamental to the program's **active learning approach.**

tempo The pace of the microbeats in a musical selection.

THINK & DO The fourth step of the Four-Step Language Process, in which the learner matches the movement with thought rather than verbalization.

time awareness In the study of movement, understanding of the measured speed involved (whether it is fast/slow, even/uneven, and so on). All movement has timing.

tracking The act of visually following a dynamic movement.

triple meter Meter based on groupings of three beats or multiples of three.

turn A nonlocomotor movement that involves taking the arm, hand, finger, foot, or leg all the way around in a 360 degree movement; the body part traces a circle as it fully rotates around a single point (such as the arm rotating from the shoulder). Also, a locomotor movement term in the Language-to-Dance vocabulary.

two sides Corresponding body parts on opposite sides of the body moving at the same time.

uneven timing A condition in which the intervals of time between movements vary.

WHISPER & DO The third step of the Four-Step Language Process, in which learners softly speak the word or words they are matching with movement.

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Appendix F

Training in the "Education Through Movement" Program

The following training opportunities are available in the "Education Through Movement: Building the Foundation" program:

Summer institutes—two-week courses leading to a Certified Teacher credential (two summers) or an Endorsed Educator or Endorsed Trainer credential (three summers)

One-day and two-day High/Scope-cosponsored workshops offered across the country during the school year

School district and agency-sponsored workshops and long-term teacher certification training

National, regional, state, and local conferences that include sessions on the "Education Through Movement" program's approach

By taking advantage of one of the above training opportunities, you will be able to join the network of caring adults who use purposeful movement as the active learning base to make a significant difference in the lives of thousands of students.

For further information, please contact Phyllis S. Weikart or Elizabeth B. Carlton through the following:

High/Scope Foundation
600 North River Street
Ypsilanti, MI 48198
(313) 485-2000

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About the Authors

Phyllis S. Weikart, Director of the program "Education Through Movement: Building the Foundation," is a nationally known and highly respected educator-author. She bases her writing on her ongoing work with students of all ages—preschoolers to senior citizens. In addition to being the primary author of this book, she recently coauthored *Foundations in Elementary Education: Music* with Elizabeth B. Carlton.

Phyllis S. Weikart is Associate Professor Emeritus in the Division of Kinesiology, University of Michigan, and visiting Associate Professor at Hartt School of Music, as well as Movement Consultant for the High/Scope Educational Research Foundation. Her formal education includes a B.S. degree from Beaver College and an M.A. degree from the University of Michigan. In addition to being an educator and author of seven books, she is a researcher, curriculum developer, workshop leader, choreographer, and promoter of high-quality international folk dance albums (with 14 released albums). Her wide-ranging experiences have led to the development of a teaching approach that ensures teachers success with students of all ages.

Elizabeth B. Carlton, an Endorsed Trainer in the "Education Through Movement: Building the Foundation" program, is Director of the Catawba College Community Music Program in Salisbury, North Carolina, and Music Consultant for the High/Scope Foundation. From these roles and from her many other pursuits, she brings to her writing many years of teaching experience with students of all ages. Having earned degrees in music performance and music education (BA, BME, MA) from Georgetown College, Kentucky, she has gone on to a varied career. In addition to being Assistant Professor of Music at Catawba College, she is a composer, curriculum developer, workshop leader, organist, piano teacher, and author (the primary author of *Foundations in Elementary Education: Music*). Her colleagues at Catawba College recently recognized her excellence and innovation in the classroom by awarding her the Swink Prize for Outstanding Classroom Teaching.

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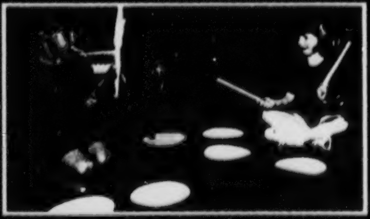
▶ Movement

PHYLLIS S. WEIKART
ELIZABETH B. CARLTON

Movement that is purposeful can enhance the total education of every student. This book, based on this basic tenet of the "Education Through Movement: Building the Foundation" program, enables teachers to use movement and music to engage and support students through an **active learning approach** and **Teaching Model.** The book's special features include



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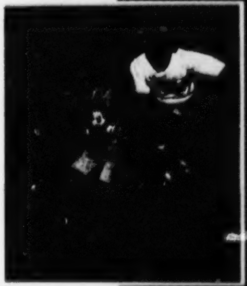

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By drawing on their wide-ranging experience, the authors have developed a text that is useful for classroom teachers, physical education and music specialists, teachers of special populations, and parents. The content and approach to movement described here assure success not just with students in grades K–3 but with students of all ages.

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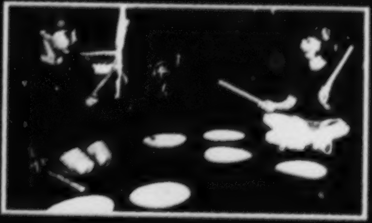

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